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Audubon

MAGAZINE

Formerly
BIRD-LORE

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Number 1

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Besides *Audubon Magazine*, the Society publishes *Audubon Junior Club News*, a newsletter for boys and girls, *Audubon Nature Bulletin*, for teachers and youth leaders, *Audubon Field Notes*, a magazine on bird distribution which includes seasonal reports, a breeding-bird census, a winter census and a Christmas count.



THE FIRST FIFTY YEARS

By Robert Cushman Murphy

Honorary President, National Audubon Society.

IN February, 1899, the late Dr. Frank M. Chapman, long the dean of American ornithologists, brought out the first number of *Bird-Lore*. The journal was announced as a bi-monthly magazine devoted to the study and protection of birds, and as the official organ of the Audubon Societies. The latter comprised about a score of zealous and extremely active state bodies that preceded the creation of a national organization.

A fly-leaf of the first issue carried an advertisement of Newton's "Dictionary of Birds," hailed by Elliott Coues as the "greatest and best book ever written about birds." Less technical works were

likewise listed, such as "Birdcraft" by Mabel Osgood Wright, with eighty plates by Louis Agassiz Fuertes. These and some of the following names are mentioned to suggest the aura of distinction around the launching of a modest but imaginative project that was destined to satisfy a universal need.

The very first article, "In Warbler Time," was from the pen of John Burroughs, and the frontispiece was a flash-light photograph of this Sage of Slab-sides, taken by the editor himself. The second article bore a title which today sounds quaint and curious, namely, "The Camera as an Aid in the Study of Birds." It was written and illustrated by still another inspiring figure in the development of American bird study, Dr. Thomas S. Roberts, of the Univers-



The early charm of *Bird-Lore* is as irresistible today as to its contemporaries at the close of the Gay 'Nineties.



ity of Minnesota, later the first individual in the world to bear the designation of Professor of Ornithology. The photographic reproductions are typical 19th-Century "snaps," and a glance at contemporary cameras figured in an advertisement on the back cover (\$5.00 to \$40.00!) sufficiently explains their limitations. Still another contributor was Florence A. Merriam, subsequently to become Mrs. William L. Bailey and the author of the "Handbook of Birds of the Western United States."

The editorial page, as always an admirable example of Dr. Chapman's guiding genius, outlined the purpose

of the new-born journal by calling it an aid to observers rather than to collectors of birds. It stated, furthermore, that "every prominent American writer on birds in nature has promised to contribute to it." They obviously made good, for, in addition to leaders already cited, the names of William Dutcher, A. K. Fisher, Ernest Thompson Seton, Olive Thorne Miller, Frederick H. Kennard, William Beebe, Otto Widmann, Bradford Torrey, Witmer Stone, J. A. Allen, Robert Ridgway, and William Brewster appear in later parts of the volume that closed one year before the end of the 'Nineties. Here again is a standard that has been maintained, because most of the outstanding ornithologists, and many other naturalists, of the present century have also given of their

best to the venerable publication now known as *Audubon Magazine*.

By the time the third number was issued in June 1899, publishers had already come to regard *Bird-Lore* as a useful medium for offering their general wares. Among the books commended to the public in Volume I are "Uncle Remus," "David Harum," "The Hero of Manila" (the Spanish-American War being not yet one year behind), "Wild Animals I Have Known," and "Cyrano de Bergerac."

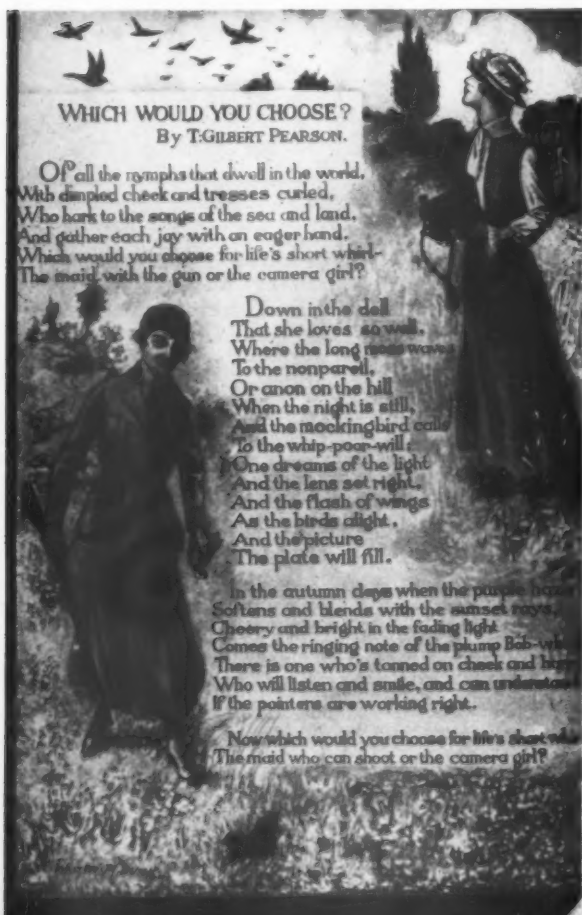
Very promptly the new magazine began its part in the militant campaign to end the slaughter of American birds that was then rife. The second issue contained a letter to the editor from Theodore Roosevelt, Governor of the State of New York, which showed a grasp of the meaning of "extermination" to a degree that was then very rare.

Possibly, alas, it has grown even rarer, as the human race has continued to pile up numbers faster than it has enhanced sensitive insight. Governor Roosevelt wrote:

"When the bluebirds were so nearly destroyed by the severe winter a few seasons ago, the loss was like the loss of an old friend, or at least like the burning down of a familiar and dearly loved house. How immensely it would add to our forests if only the great Logcock were still found among them!"

"The destruction of the Wild Pigeon and the Carolina Paroquet has meant a loss as severe as if the Catskills or the Palisades were taken away. When I hear of the destruction of a species I feel just as if all the works of some great writer had perished; as if we had lost all instead of only part of Polybius or Livy."

The editorials, the reviews of literature, and the reports of the secretaries of the State Audubon Societies soon began to strike out forcibly against the



The ABC OF BIRD-LORE (on opposite page) appeared in March-April 1901. For many years *Bird-Lore* had a department for young observers.

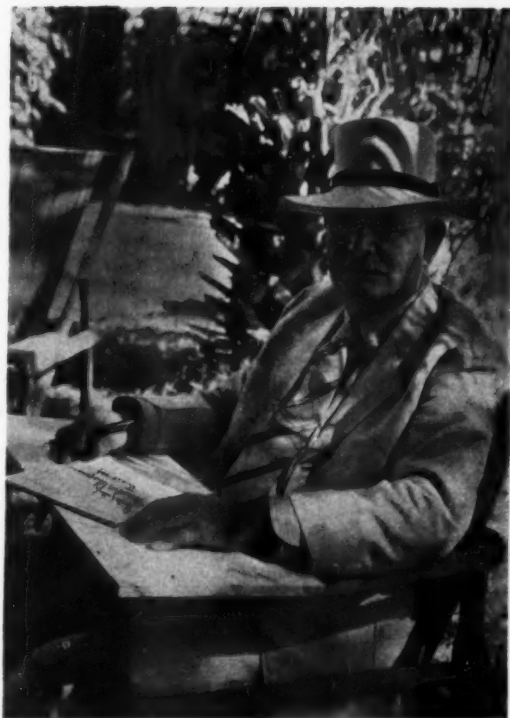
The camera girl (shown at left) is reproduced from May-June 1915 issue. The same issue carried a feature article entitled "Bird Photography for Women."

evils of indiscriminate amateur collecting and the hideous excesses behind the traffic in millinery feathers. One of the full-page photographic reproductions in the fifth issue depicted "quills to be avoided" when purchasing a fashionable hat.

The end of the 19th-Century marked not only a break in the calendar but also a pervading and many-sided change in national point of view. Within the United States itself the Frontier had vanished, but the conflict with an elder European nation, and the acquisition of the Philippines, had caused the Republic to adopt the attitude of a world power and to feel its oats in terms of what was then called "manifest destiny."

Furthermore, much was under way to herald the full flowering of the scientific age. Thomson had only recently inferred and characterized the electron; Ramsay

Frank M. Chapman, founder of *Bird-Lore*.



For Young Observers

THE A B C OF BIRD-LORE

BY ELIZABETH HOPPIN LOWE



A is for *Ark*, now extinct, we are told.



B is for *Blue-jay*, so handsome and bold.



C is for *Cat-bird*, who mocks everything.



D is for *Dick-cissel*, and how he can sing!



E is for *Eagle*, who sees far away.



F is for *Fly-catcher*, silent and gray.



G is for *Goldfinch*, a gallant young man.



H is for *Hawk*, who will hunt if he can.

The A B C of Bird-Lore

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I is for *Indigo bird*, you must know.



J is for *Juncos*, who comes with the snow.



K is for *Kingfisher*, hatched in a hole.



L is for *Lark*, and he sings a long note.



M is for *Marsh-wren*, who warbles all day.



N is for *Nuthatch*. "Quank, quank," hear him say?



O is for *Oriole*, nest like a hood.



P is for *Pewee*, the voice of the wood.



Q is for the bird that we eat, called a *Quail*.

had found helium—the sun gas—on earth, and Roentgen had discovered and controlled X-rays. Becquerel had accidentally stumbled on radioactivity, and Diesel had developed the type of engine which still bears his name. The Curies had isolated radium, Marconi had demonstrated wireless telegraphy, and Lumière motion-picture photography, though these, like rayon (which had already been created by Cross and Bevan), were yet to find their widespread practical applications. Keeler had proved the meteoric composition of the rings of Saturn. In the biological field, Carrens, De Vries, and Tschermak had rediscovered Mendel's forgotten laws, but the epoch-making fruit fly (*Drosophila*) had not yet become a domesticated laboratory animal. Both Langley and Chanute had conducted successful experiments with gliders, in imitation of soaring birds, but the first motor-propelled flight of the Wright brothers was still four years in the future. Gasoline, in so far as it was known at all, was chiefly a waste product in the stages of cracking petroleum.

It was an age of expansion, of thresholds and vast portents, and yet in many respects a gentle, leisurely period, as we view it nostalgically across the decades. No motor cars brought far shooting grounds near for hordes of gunners, multiplying like the rabbits of Australia. Drainage programs had scarcely begun to dry up the West. Many or most midland watersheds still bore an adequate forest cover. And even though millions of birds had been heedlessly wiped out by the combined effects of the cage, hat, and game-market trades, there were still spots of primordial Eden in the long-settled East. The ivory-bill, passenger pigeon and paroquet at least survived, even though their probable doom could be foreseen. Many a southern swamp was yet green with virgin cypress, and there were countless stands of long-leaf pine that neither lumberman nor turpentine had ravaged.

"Conservation," as we now use it, was a word without fame. Not until the first administration of President Theodore Roosevelt (1901) did it enter our vernacular language. In Edna Ferber's autobiography, "A Peculiar Treasure," published in 1940, there is an interesting reflection of the beginnings of our modern movement. She writes:

"... already in certain quarters some agitation against this plundering and destruction of America's natural resources was being heard. Theodore Roosevelt put into use still another of his popular presidential phrases: conservation. Conservation of forests, of waterways, of wild-animal life. Wasteful, careless America, killing, chopping, discarding, thought this a good joke. Conserve America's natural resources! Why, they were limitless. A lot of bunk. Teddy was just out to get some more publicity."

Such was the backdrop against which *Bird-Lore* first raised its seemingly innocuous head. But, as Thoreau once asked, who can resist a man in earnest? Conceived with vision, the journal supplied a mouthpiece for scattered groups which lost no time in becoming vociferous. It bound into strong fasces the votaries of a hobby that had good use for a belligerent sideline. It always remained more than a medium of reform, and became, rather, a source of enlightenment. It reconciled the points of view of so-called "sentimentalists" with those of sound sportsmen such as George Bird Grinnell and John C. Phillips. It enabled the great trend toward appreciation and protection of nature to hang together. It established the tremendously popular Christmas and breeding-bird censuses, which cover the nation. It recorded the whole development of the art of nature photography. It offered a wealth of color plates of North American birds, accompanied by brief life histories, which were published by hundreds of thousands as leaflets for the education of children who have since become the makers of sentiment and of law.

For 36 years Dr. Chapman continued

to edit *Bird-Lore* and to write for it, always keeping also his original persuasiveness in obtaining copy from keen and enthusiastic amateurs as well as from a surprising proportion of the foremost scholars of the time. Small wonder that by 1910 many back numbers of the journal had become unavailable!

In 1935 the founder gave *Bird-Lore* to the National Audubon Society, since when it has had the successive editorial direction of William Vogt, Margaret Brooks, and Eleanor A. King, each of whom has built well upon the foundations of the past. With the growing realization that the saving of a fauna depends upon continuance of the range, that soil and the water-table are the indispensable substratum for plant and animal organisms, and that all nature is a unit of many interdependent parts, the name of the publication was changed in 1941 to *Audubon Magazine*. Thereafter, text could be welcomed from students competent to discuss any aspect of the land and its life, in relation to the health of both. Without slight to the birds, but rather to their deeper advantage, we have since been able to enjoy, for example, Aldo Leopold's wisdom in the field of ecology, Roger T. Peterson's critique of life zones and biomes, and Richard H. Pough's serial on "The Wildlife Community" which, by the way, has been several times reprinted in other journals.

In short, a philosophy of conservation

was born and grew up in the half-century under consideration, and this magazine had no small part in its nurture. Man, or at least educated man, looks at his fellow-inhabitants of our planet less naively than in 1899, is less inclined to glory in his own apartness, and readier to recognize how intimately his well-being is tied up with that of the rest of life. He is not as anthropocentric as formerly. He no longer seeks moral precepts in the behavior of animals, for he knows that all of them—himself included—are "predators," and that only the plants can manufacture food. He has become, we hope, less of a passer of judgments and more of a humble searcher after truth. He has begun to feel concern lest his children, and their children's children, may inherit an earth poorer in the capital and interest of both subsistence and spiritual values. Rather suddenly, he has acquired an enormous respect for the agelong, untutored wisdom of nature, which seems to have cast his own efforts, or the lack of them, in a very bad light.

Such are the kinds of information and the point of view that have become part of the necessary intellectual equipment of a thoughtful man; they belong to the new humanities, which we must honor if we are to save the world and ourselves. And so, the idea of 1899 has grown, like leaven, until it has become an organ of civilization.

Vivat, floreat, crescat!





{ ECOLOG OF A DENIZE NEWLY ARRIVE IN THE FORES

I don't know how to begin—or when, or where—
today or yesterday or a million years ago,
here or there or underneath a fallen log,
with myself or you,
from the top or from the bottom of the high sierra range,
or from the point of view of green-lace flies that lay their eggs on
upright stalks along the edges of willow leaves.
Everywhere I look, I see a starting place,
or an ending place,
a pin-point niche somewhere between the granules of the soil and the
claw-sheaths of the predators—
everywhere that life-forms breed or thrive or just get by, in the mass
of rootlets holding forest ground intact, in nests that straddle
limbs, in the furrowed bark of pines, in the sedgy meadows, in
chaparral, under ledges in the banks of streams, in the streams
themselves, below the rocks and all around the rocks, in the
abdomen of damp-wood termites, in the sawdust of their making,
in the dung of deer and birds and mice and fish, in the gravel
runs of lizards, in semi-rotted needle mats, in piles of chewed
pine cones, left like apple cores by chickarees, between the
furry legs of fairy shrimp, in the wind that curves like lake
water through the forest, in the sun that pulls like a poultice
in the clearing, in the dark-woods night, in the very dust that
flaps like frayed brown blankets down the road . . .
and everywhere that life *doesn't* breed, or has before but doesn't now,
or might again or never will, or maybe will and maybe won't . . .

By Don Emblen

Ecology was a new word to Don Emblen when
he enrolled in the Audubon Nature Camp
of California last summer. Before the
first week had run its course,
he found that this strange word had
unlocked new meanings and
rhythms in nature.

everywhere outward from here, in concentric circles,
by inches or by continents,
where man has been and where he hasn't,
where he is, or where he isn't . . .

Everywhere I look I see a starting place,
or an ending place—
like this—or this:

I rest my hand upon the bottom of a twelve-inch stream,
letting it sink with its own weight deep into the murky,
moth-wing mud of the bottom,
and a great, floriated rhythmic set of words and feelings,
thoughts and emotions and questions stir up and twirl like dust
at the opening of a gopher hole.

I move one finger in this submarine humus of saturated seeds
and decaying leaves, of the excrement and carcasses and eggs of
a million creatures;

the whole floor of world below me moves,
a feather ooze, the mothy, musty, velvet flesh of stream-bottom.
A diving beetle skids across my thumbnail,
and I stare like a man seeing an alligator in his bathtub.

I could begin *anywhere*, with *anyone*.

In coming here I must have thrust my consciousness,
like a careless hand,



into a porcupine's nest;
and now I stand around, staring and open-mouthed in wonder
at the thousand barb-shaped facts of life that quiver
and sting as I touch them.

The fact that beetles all have four wings,
that grasshoppers' ears are on their abdomens,
that some birds walk quite backwards down the length of trees,
that conies manufacture hay and store it for the winter,
that you can stroke a tadpole's back, and that it feels as fine
as chinchilla fur,
that someone twisted all the needles on all the white firs in
the mountains . . .

anywhere and anyone and anything . . .

I don't know *when* to begin, either,
whether to start when we first drove in to Norden Store,
or on that humid, trembling morning seven million years ago
when a spine of solid granite rock was humped
some fourteen thousand feet into the air;
or somewhere in between, as between life zones,—
in a desert time, in a foothill time, or a mesa time, or
an upper arctic time.

Tell me how to unmesh moments from a manzanita snarl,
and how to separate the year, the month, the day from shining,
glaciated peaks and cirques and chutes and needle points and
ledges and pulpits of stone,
and how to hold back leaves to see hours crawling up the stems,
and how to catch a minute on the wing, like a yellow-jacket wasp.
Perhaps sometime between the year when men first learned that
plants have sex,
and when they found that some insects
reproduce without sperm;
sometime between night and day, between the first swallow squeak and
the last owl hoot.

Take that single, snow-struck, glacier-dazzled moment when
I stood squinting
into unimpeded mountain sunlight off the granite slab,
and stared up until my neck ached
at bone-white junipers still writhing by themselves on Donner Peak.
Just that one, brief, wind-whistling moment,
with me squinting and staring and whispering with reverence at
the ivorylike tenacity of life in those trees,
standing in cold torture,
still thrusting out and fighting,
still at it, after five hundred years of stronger winds and colder ice
than this man ever endured for a second.
And yet . . . in that one moment I lost track of myself,
completely losing personality and sense of possessiveness that
is usually there when I look down at my shoes or my arms or
the cuffs of my pants,
and it was hard to tell where tree and rock left off and I began—
standing there,
listening for wind and conies in the talus slides,
sniffing like a marten in the pollen-loaded air.
I don't know what to say, what to pass on and what isn't worth
your listening,
for every square-stemmed mint stalk, every flattened petiole



on quaking aspen trees, every rising and falling call-note muffled
in the flat sprays of fir, every toe-mark in the dirt, and every
bubble rising like a solid silver ball from the lake bottom
is as full of meaning to me now as my hand is full of blood.
Every rib of every fluted corn lily in the swamp,
each facet of every lava-studded, panoramic view from here to Halcyon
and back

stands out in the iridescence of reality,
like a dogwood blossom catching sunlight in the climax forest.

All the microscopic things and all the macroscopic things,
everything from seeds as small as dust-flecks to mountains

and hydrographic cycles and incredible kinships,
from the solemn simple nod of one wild timothy beard
to a circular hypothehem of man and mass,
from the clean and hesitant wildlife of sagebrush flats
to the god-factor in the metaphysics of a conservationist.

Everything speaks, nods, glares, menaces, smiles, beckons;
everything expresses itself and its enemies and its allies;
everything stands up in the forest and finally is.

I begin to understand complicated things,
like the ratio of currant berries to white-bark-blister

to silver pines,

and simple things,
like the texture of my wife's hand.

Forms of life and un-life—objects, pieces, things, limbs, segments—
at last begin to come out from under the overcast of generalities like
"scenery" and "nature" and "country-side."

I begin to see this world as it is, rather than as someone says it is—
by the glint and sheen of actual colors,

by the triangular and variegated shadows of actual shapes,
by the tracks of actual animals,

by the rustling and whistling and murmuring and bubbling and
coughing and booming of actual noises;

by feathers, scales, antlers, follicles, legs and claws and pincers,
fur and pupa cases, by eggs and stamen, furrowed bark and
smooth, needles, buds, roots, rocks, pebbles, boulders,
stumps, bracts, genitalia, forelocks, tails, ears,
tufts on ears,

by the water boatmen entangling oars
within the hairs of my arm;

by the grain and fish and fowl and slime that make up the flesh and
fiber of all these things,

by the banks of deep brown earth,

by the shallow desert tissue of fallen greasewood leaves,

by the polluted and unpolluted waterways, and the great, unmeasured
lake-shapes of sky and air,

and the water level flushing up and then subsiding
underneath this cosmic circus,

by the glinting, flashing course of mystic energy that
cleaves a mountain or makes an embryo perch kick through
the ovum wall, or lifts the corner of Betty's mouth, or lies
smouldering in ponderous gestation beneath volcanic cones.

And thus I stand

in this wide world, this strange, biotic universe, this habitat;

I seem to be waiting and ready and slightly a-tremble,
poised and eager and fearful and tingling with great joy,
head up in my environment, like a picket-pin squirrel,
waiting the hawk-rush of a primal truth,
and the talon-clutch of its taking hold.



**We preserve representative samples of the wilderness—a
spiritual value that cannot be measured in coin of the realm.**

Photograph by National Parks Service.



A Conservationist's Philosophy

**For 50 years this philosophy
has been in the making. But ACTION
must go hand in hand with the search
for timeless truths—
for the value of a philosophy of
conservation depends upon
the existence of something
worth conserving.**

By Alexander F. Skutch

THE first point in the philosophy of the conservationist, especially if he is also a naturalist, is the desirability of preserving for ourselves and our posterity, in their original and unaltered state and amid their natural setting, unique natural objects including mountains, waterfalls, glaciers, caves and unusual geological formations; liberal samples of each type of vegetation, as deciduous and coniferous forests, grassland and alpine meadow, in its most highly developed form; and of every kind of animal and plant, save noxious parasites and dangerous pathogens, a population sufficiently numerous and well situated



to be exempt from the threat of extermination. He believes that the spiritual and intellectual values to be derived from these things will amply repay the cost of preserving them. Historically, the attempt to preserve representative samples of the wilderness and its life marks the beginning of the conservation movement in America. It is also the most usual point of departure of the novice in conservation.

But the seasoned conservationist will not forget that the fitness of the earth for human life is twofold; it supplies the means of man's subsistence as well as the values that make his life worth living. Men have always tended to exploit the natural wealth at their disposal without giving much thought to the

future. The conservationist is well aware that unless people are fairly well fed, clothed and housed they will have little time or inclination to consider the grandeur and beauty of nature. A hungry man is too preoccupied with thoughts of food, a cold man with the means of obtaining warm clothing and adequate shelter, to care whether a distant mountain peak is set apart as a national monument. If preserved forests are on land capable of producing a few grains of wheat or a couple of potatoes, a starving population will soon be clamoring to have them opened to agriculture; if the people lack materials for building dwellings, they will wish the trees to be turned into lumber.

Thus the second point in the con-

Photograph by Soil Conservation Service.



servationist's philosophy is the preservation of the means of subsistence. In addition to altruistic consideration of the needs of his neighbors and of future generations, he is fully aware that his success in preserving natural objects whose value is chiefly esthetic or intellectual will depend largely upon keeping the population of his country well supplied with their prime necessities. Accordingly he will interest himself in conserving the productivity of the land and the purity of the waters, in seeing that only renewable timber is cut and that mining is carried on by economical procedures. He will always prefer systems of exploitation which use only current increments to those that exhaust wealth, in whatever form, that has been slowly accumulated through the ages.

The third point in the conservationist's philosophy is the unity of conservation. There are not many kinds of conservation; there is only conservation and the lack of it. This is because nature is not a series of isolated systems, but a

**We must interest ourselves in
conserving the productivity
of the land and
the purity of the waters
and in seeing that only
renewable timber is cut.**

single vastly complex community of many interacting organisms, including man himself and all the animals and plants that surround him. We either preserve this community and its environment in good health or we allow it to

Photograph of white pine forest by U.S. Forest Service.



become diseased and out of balance. One man may be interested in conserving the fertility of the farmlands, another in protecting birds, a third in saving trees; but unless they and others of many different primary interests unite in supporting a well-rounded program of conservation, it is likely that each in the long run will be unsuccessful in his partial aims. Similarly the unity of conservation transcends national boundaries. Rivers that flow, winds that carry rain, birds that migrate, all pass from country to country; and good practices under one government may be nullified by evil practices under another. And in our present economically interlocked world, shortages of primary materials in one continent often react unfavorably upon the conservation policies of another.

Hence the conservationist must have great breadth of vision, and some knowledge of the principal branches of plant and animal life. I heard it said of a well-known ornithologist—doubtless with some exaggeration—that he could not tell a daisy from a dandelion. In many fields of scientific investigation the narrow specialist may go far, achieve eminence and contribute knowledge of fundamental importance. But the situation is different with the conservationist, for he deals, not with some organism isolated in the laboratory or museum, but with living things under natural conditions, where animal is dependent upon plant and plant upon soil and soil upon weather, which in turn affects the animal directly—where in fact the welfare of everything is somehow bound up with everything else. Under such conditions no narrow specialization is permissible.

Similarly the conservationist must be as impartial as nature herself. He cannot play favorites. He may like the deer and wish to defend them from predatory carnivores, but if he meddles too much the deer may overpopulate their range and perish by starvation more lamentably than if suddenly struck down by the puma or jaguar. It is not unnatural for

him to prefer the small birds—sprightly, bright in plumage, sweet in song, harmless to their neighbors—to the cruel-taloned and, by comparison, stolid and sullen birds of prey. But if he destroys the latter indiscriminately he may be confounded by grave unbalances in the natural community which react most unfavorably on the very creatures he wishes to protect. At most our intervention may tilt the balance slightly in favor of one organism or another; and we must be exceedingly cautious lest we overtill it.

We cannot even favor man himself without considering him a part of a larger biotic community. This is a conclusion that men in their foolish pride will long and stubbornly resist, but there will be no fundamentally sound conservation until we accept it. Medical science in its modern form grew up largely in western Europe and North America. Almost immediately it increased man's length of life. But in these regions the same social and economic forces which favored the development of medicine resulted in a decline in birth-rate. This tended to compensate the decreased mortality and prevent an excessively rapid increase in population.

But take, for example, the impact of modern medicine upon countries where it was previously lacking. It was quite different when modern medicine and sanitation were introduced—in part by missionaries and visiting commissions as a sort of human conservation service, in part by native doctors who went to study abroad. The result has been a decline in the mortality-rate—not to the same low figures that prevail in the North, but still considerable—uncompensated by a falling birth-rate. This is kept high partly by religious teachings, partly by lack of the same social and economic pressure that resulted in its decline in the North. Hence overpopulation, deforestation, overcultivation of unsuitable lands in a hopeless attempt to wrest a living from them, erosion, failure of streams, malnutrition, social

Photograph by Don Eckelberry.



The new generation understands the unity of conservation. There are not many kinds of conservation; there is only conservation and the lack of it. This is because nature is not a series of isolated systems, but a single complex community including man and all the animals and plants that surround him.



Photograph of baby raccoons by Karl H. Maslowski.

Photograph of yellow lady slippers and trillium by Gottsche-Schleisner.

unrest, decline in the value and dignity of human life, an increase in the quantity of men but certainly no advance in their quality—conditions which have been vividly portrayed by William Vogt in his book "Road to Survival." This makes us suspect that when we help comparatively primitive peoples to stay well and keep their babies alive, we may be following the dictates of our hearts rather than using our heads. It is cruel to keep people alive on half rations. Unless in addition to conserving men we help them conserve the lands and waters they need to live decently, we had better adopt a policy of "hands off."

The fourth point in the conservationist's philosophy is the need for research. Conservation, as we have seen, consists not only in preserving small areas of the earth's surface in their pristine loveliness, but in so managing the larger parts devoted to production of various sorts that they will reach their maximum productivity and maintain it from year to year. To attain this goal the conservationist must understand climates, soils, the life history of each of the varied organisms that make up the living communities with which he deals, the interactions of every one with every other and with soils, crops and man. This is an ideal impossible of attainment, even if as conservationists we are helped in our studies by a multitude of specialists whose knowledge in particular fields is more profound than ours, although their breadth of view may be permissibly more narrow.

But the nearer we come to the fulfillment of this ideal, the better conservationists we shall be. And since we must always fall short of perfect knowledge, we shall be humble and meddle with nature as little as possible. With more time, patience and ingenuity than we possess, she has been experimenting, during millions of years, with the relations of living things to their environment and to each other. It is likely that she

(Continued on page 41)



Photograph of red fox by Adolph Muric.

**We should make as a test
of the highest culture the capacity
to enjoy the earth and its creatures
without destroying them.**



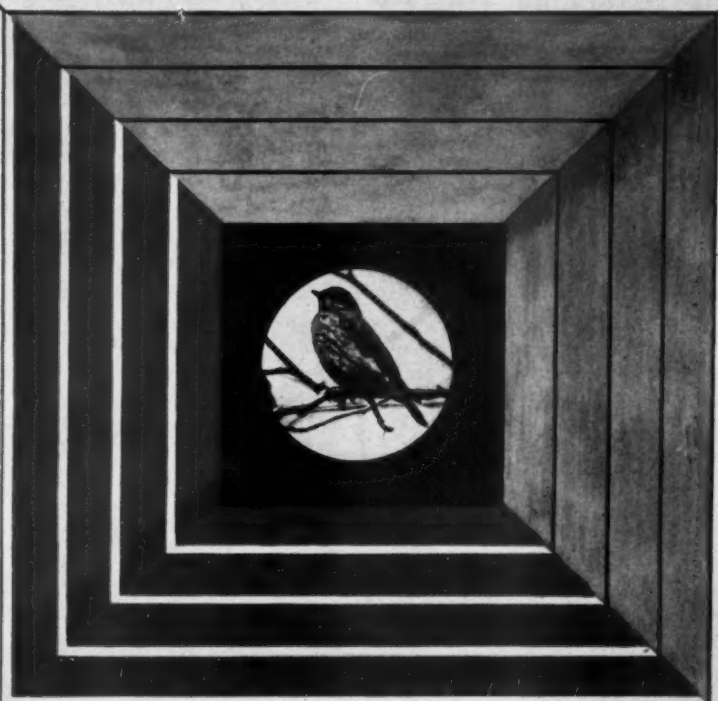
Photograph of male mallard by Hugo H. Schroder.



Photograph of moose by Hustace H. Poor

JANUARY-FEBRUARY, 1949





Nature Photography

FIFTY YEARS OF PROGRESS

By Edwin Way Teale

NOT long ago, I ran through some of the earliest issues of *Audubon Magazine* when it first appeared as *Bird-Lore*. Opening Volume I, I discovered that the feature article in the first issue (February 1899) was on photography as an aid to bird study. During succeeding years, rarely a copy appeared without containing something on progress in photography or on new techniques in outdoor camera work. Throughout its history, *Audubon Magazine*—both by the

articles it has run and the pictures it has published—has been a force in stimulating interest in nature photography.

Its founder and long-time editor, Dr. Frank M. Chapman, was himself a pioneer and personal force in outdoor camera work. As early as 1888 he made his first bird photograph. The crude plate camera he used was equipped with a homemade shutter formed from pieces of cigarbox and operated by a rubber band. During an expedition to Manitoba in 1901, Dr. Chapman invented the umbrella blind, long a standby of early

bird photographers. His book "Bird Studies with a Camera," published in 1900, attracted wide attention to the possibilities of bird photography.

During the early years of the present century, other nature-photography books stimulated interest by exhibiting the work of pioneers in the field. A. Radclyffe Dugmore's "Nature and the Camera" appeared in 1902. There followed books by the two English naturalist-cameramen Richard and Cherry Kearton, and Herbert K. Job's inspiring "How to study Birds." Magazines such as *Country Life in America* published the best pictures of early bird and nature photographers and thus played a part in advancing growing interest in the work. And, all the while, technical improvements were arriving to aid the nature photographer.

In fact, *Audubon Magazine's* half century of existence has coincided with the half century of photography's phenomenal growth. Almost everything that the out-of-doors cameraman takes for granted today is the product of those fifty years. When the first issue of this magazine appeared, there was no such thing as color film, 16-millimeter movies, flash bulbs and photoelectric exposure meters. There were no miniature cameras, coated lenses, fine-grain developers, panchromatic emulsions, and supersensitive films. Those were the days when anti-halation backing and non-curling roll film were still to be devised, when no one dreamed of synchronized flash-guns or Edgerton lights.

During its early years, *Bird-Lore* was forced to use hundreds of pictures of stuffed birds. So few were the photographs of wild birds in their natural surroundings that the captions beneath such pictures made special note that they were "photographed from nature." Running through Volumes 2 and 3, I counted 88 photographs of stuffed birds to only 76 photographs of living birds, and several of the latter were taken in 200s.

Today, using modern equipment, nature photographers take sharp, clear action pictures of living birds in their natural surroundings. The change from slow plates and cumbersome view-cameras of fifty years ago to the improved negative materials and compact equipment of the present is reflected in such great bird-photograph collections as those amassed by Allan D. Cruickshank of the National Audubon Society, Dr. Arthur A. Allen of Cornell University, and others.

Dr. Allen, who took his first bird photograph in 1902, is still pioneering in the field. In the June, 1948, *National Geographic Magazine* he achieved a new photographic first by publishing pictures of birds in action on kodachrome taken in 1/5000 of a second.

Curiously, the world's first photographic image was a bird picture—although the bird didn't show. More than a century ago, in the French village of Gras, Joseph Nicéphore Niepce, a soldier who had fought with Napoleon, coated a plate of polished metal with asphalt dissolved in oil of lavender and placed it in a crude box-camera with a telescope lens in front. Pointing this at a pigeon-house, he left the lens open all day. After an exposure of eight hours, a faint image of the dovecot appeared on the plate. That eight-hour snapshot is the ancestor of all the split-second recordings of high speed action that we know today. The asphalt-coated plate has been succeeded by a long sequence of better and better plates and films. In recent years, improved and speeded-up negative materials have opened new fields to nature photographers.

One summer day, years ago, I snapped the picture of a reddish beetle as it paused on a patch of black earth. In the resulting picture, the insect was invi-

This photograph of a chickadee about to land on the food shelf was made by Professor Arthur A. Allen of Cornell University by means of a speed-flash of 1/5000 of a second synchronized with an Ilex Acme

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synchro shutter set at 1/200 of a second. The two flash tubes were approximately two feet from the shelf and the 8-inch lens approximately five feet. The $3\frac{1}{4} \times 4\frac{1}{4}$ film was panatomic X and the shutter was set at f.22, the resulting negative being fully

exposed. A piece of plywood painted light green (for use with color film) was placed behind the shelf so that the background of the photograph would not be black. The plywood was placed two feet from the shelf so as not to interfere with chickadee.

ble, as black as its background. The film I had used was "color-blind" to red. It recorded it as black. Today, panchromatic films that are sensitive to all colors, including red, are everyday aids to photography. With such films, a wide variety of filters permit the nature photographer to achieve special effects in the out-of-doors. A different kind of filter, the polaroid screen, eliminates glare. And for far-distant scenes, such as those that spread away below a mountaintop, infra-red film is now available. It is relatively unaffected by haze.

Of all the many improvements recently made in films, none is of greater importance to the nature photographer than the introduction of supersensitive emulsions. So easily affected by light rays that they have to be developed in total darkness, these films permit greatly reduced exposures. They permit higher shutter speeds that will stop motion and prevent blurred images. They enable camera-work with poor lighting and on overcast days. They allow the diaphragm to be set at a smaller opening, thus increasing the general sharpness of the picture from near foreground to infinity. Thousands of pictures, impossible to get with slower emulsions, are now obtained on supersensitive film. Modern films also have increased latitude. That is they produce a usable image even when greatly over-exposed or under-exposed. I once tried the experiment of shooting a roll of film in the same light but giving each of the twelve negatives a different exposure. Although the greatest exposure was fully twenty-four times that of the least exposed, every one of the twelve negatives might have been used to produce a presentable print and six of them appeared to my eyes to have exactly the same density.

This amazing latitude of the modern film, coupled with its increased sensitivity, comes to the aid of the nature photographer on many a difficult shot. So does the coated lens, admitting more light, and the photoelectric exposure

meter, taking the guesswork out of setting the diaphragm and shutter.

Not infrequently, the final enlargement of a picture is made from only a small portion of the original negative. In earlier times, this often produced blotched or speckled prints. Clumps of silver in the image enlarged into objectionable blemishes. Thanks largely to the advent of the 35-millimeter miniature camera, fine-grain films and developers have been introduced that eliminate most of this difficulty.

The miniature camera, small and lightweight, has found many uses in nature photography. Its focal-plane shutter permits exposures as short as one-thousandth of a second. The camera that permitted some of the earliest of these high-speed, action-stopping snapshots was the Graflex, still the standby of such noted bird-photographers as Roger T. Peterson and Allan D. Cruickshank.

It was the Graflex camera that made possible the outstanding pioneer bird photographs of Howard H. Cleaves and William L. Finley who, with his wife, Irene, recorded 50,000 still pictures and 200,000 feet of movie film of wildlife in the West. Frank N. Wilson, a Michigan physician, used a reflex camera of English manufacture in obtaining his technically superb bird pictures during the nineteen twenties.

The present ultimate in high-speed pictures with out-of-door lighting appears to be the Magic Eye camera used by Edgar M. Queeny in photographing midwestern waterfowl. With 35-millimeter film racing through the camera, the apparatus records a sequence of one-thousandth-of-a-second pictures that show the changes in position of wings and tail, of neck and feet, as the waterfowl speed through the air. Queeny has taken

Milkweed fluff opening in the breeze. Supersensitive film enabled a short exposure in sunlight, thus permitting the picture to record the detail of the silk without the blur of motion which would have resulted if a longer exposure had been given.

Photograph by the author, Edwin Way Teale.

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more than 3,000,000 such pictures on the Grand Prairie of Arkansas. The best are published in his book, "Prairie Wings."

One of the first men to photograph the interior of Africa ascended the Nile with hundreds of 11x14 inch sheets of glass packed in stout boxes. Native porters transported them along jungle trails. Whenever this pioneer cameraman took a picture, he had to set up a light-proof tent, coat a sheet of glass with a light-sensitive emulsion and then place this wet plate in his camera. It is a far cry from those days to the present when the nature photographer simply changes a compact film-pack or puts in another roll. He can travel light and he can get pictures in places where working with more bulky equipment would be impossible.

Probably the most dramatic single innovation in photography during the half century *Audubon Magazine* has been published has been the introduction of color film. While pioneer efforts in this direction appeared early, it was not until the late nineteen-twenties that kodachrome enabled the amateur to record nature's full brilliance and color.

Because of this advance, modern discoveries in ornithology,—for example, Dr. Arthur A. Allen's finding of the nesting site of the bristle-thighed curlew—are recorded in brilliant color transparencies for posterity to see. (*National Geographic Magazine*, Dec. 1948). If pioneers in this country had possessed the photographic equipment now available, dramatic records of early conditions might have been preserved. The whole life of the passenger pigeon, now impossible to record, could have been caught on film. At no other time in history has the flora and fauna of a country been recorded with such pictorial accuracy as that of America in the Twentieth Century.

Such color-photograph collections as Rutherford Platt's pictures of botanical subjects and Elliot Porter's technically excellent kodachromes of nesting birds, have scientific value as well as artistic

beauty. And the combination of the 16-millimeter movie camera and kodachrome is responsible for bringing all the color and movement of wilderness scenes to the modern lecture platform. Audiences in hundreds of cities have been transported into a wild, out-of-door world beyond their actual reach by the films of Cleveland Grant, Karl Maslowski, Alfred M. Bailey and other leaders in this field.

Some years ago, I spent an afternoon with one of the pioneers of wildlife night photography, Hobart V. Roberts, of Utica, N. Y. His magnificent photograph, "In the Stillness of the Night," showing a deer listening at the edge of a mountain lake, is one of the outstanding nature pictures made in America. With his camera installed on a tripod at the bow of a canoe and his flash-powder gun heaped high, Roberts used to drift as close as possible to a subject and then set off the flash. The powder exploded with a blinding glare and a great puff of smoke. If the photographer was lucky, he escaped without burns or singed eyebrows. One picture was about all he could take in a night because the explosion of the flash powder alarmed the animals for a mile around. Similar equipment was employed by Dr. Frank M. Chapman and by George Shiras 3rd, who, even before 1900, were making wildlife pictures in swamps and along the edges of forest lakes with flash-powder illumination.

Contrast with that the safe, efficient, compact and lightweight photoflash bulb of the present. I remember an August night spent shooting flash pictures of beavers at work in a Maine bog. The animals paid no more attention to the quick and silent stabs of brilliant light than they would have paid to flashes of heat lightning. Photoflood lighting indoors and photoflash lighting outdoors are recent advances that are immensely helpful in nature photography.

For a host of pictures, the photographer with flash bulbs and a synchronizer

is virtually independent of the sun. The synchronizer trips the shutter for a split-second exposure when the flash illumination is at its peak. By means of extension cords, multiple flashes can be employed to increase the light. And through the modern synchronizer, the camera can be operated by remote control. The hidden photographer simply presses a switch at the end of an electrical cord to trip the shutter and set off the flash.

Night movies of wildlife present special difficulties. The first black-and-white films of the kind were obtained by Howard H. Cleaves, using a portable generator, a long cable and powerful floodlights to illuminate a forest scene. With improved equipment Karl Maslowski has recently obtained color films of the activity of owls and other nocturnal forms of wildlife.

If you look at John James Audubon's painting of the ruby-throated hummingbird, you will notice that the wings are represented merely as a blur. That is the way they appear to our eyes and that is the only way Audubon ever saw them. Today, however, high-speed stroboscopic pictures made with Edgerton lights reveal the varied positions that the wings assume in flight. One such picture even shows that when the ruby-throat moves backward from a flower its tiny wings pivot and the trailing edges are actually ahead of the leading edges.

As the microscope admitted naturalists to new worlds too small to see, the Edgerton light has admitted them to new worlds hidden behind motion too rapid for us to follow. It is the most original and important of all modern additions to the tool-kit of nature study.

Already its one-thirty-thousandth-of-a-second snapshots have solved old problems and made new discoveries. A series of highspeed flashes, made while film races through a camera at the rate of a mile a minute, now produce stroboscopic movies. At the New York Entomological Society, a few years ago, I watched one of the first of these remarkable films.

It slowed down the flight of a bumblebee and the takeoff of a wasp until the insect's use of wings and legs and body was revealed in slow-motion. The old idea that a wasp steers with its trailing legs was disproved by the evidence of the film.

Another long-held belief—that baby wood ducks are carried to the ground from tree-trunk nests on the backs of their mothers—was disproved photographically not long ago by Henry B. Kane, of Lincoln, Mass. Using an Edgerton light, he stopped a baby wood duck in mid-air during its own unaided leap to the ground. Not long ago, at the American Museum of Natural History, Dr. C. H. Curran, working with Henry M. Lester, solved a mystery of long standing by means of stroboscopic movies. These films showed how a drone fly uses its halteres, the knobbed vibrating organs on either side of its body, to help maintain its balance in the air. Other high-speed pictures have revealed exactly how a cat laps milk, how the wings of a flying honeybee follow a figure-eight path through the air, how the tongue of a toad is a prehensile organ, flicking downward over and around its food with a grasping motion. Because of modern photographic techniques, these and other natural history facts have become clear for the first time in the long history of man's quest for knowledge.

A decade ago, it was estimated that 25,000,000 cameras were owned in the United States alone. How many there are today, nobody knows. And how many are used in nature photography is anybody's guess. But it is safe to say that for every person interested in wildlife photography when *Audubon Magazine* was one year old, there are a thousand personally active in it today, when the magazine has reached its half-century mark. Those fifty years have brought revolutionary changes. They have made the camera, more than ever before, the indispensable aid of the student of natural history.

During February, the longing for spring begins to create a tumult in every human breast. In New York City, at least a hundred people decide to "do something about it." They call BUTterfield 8-2640 and ask "What is the first bird of spring? Is it the bluebird or the robin?"

THE FIRST BIRD OF Spring

largely on another—Manhattan.

FIFTY CANT BE WRONG!

A robin is the harbinger of spring.
I have been told; one robin or a pair
Hopping inquiringly.
And what then would you say
Saw you ten robins or a score,
Or fifty, maybe more,
In one hackberry tree
Pausing to feed, and swing
From branch to branch? Is it not fair
To hold, for all the greater reason,
Spring the impending season?
Though snow should drift, tomorrow,
it is clear,
By fifty robins spring must soon be
here!

FLORENCE CROW.

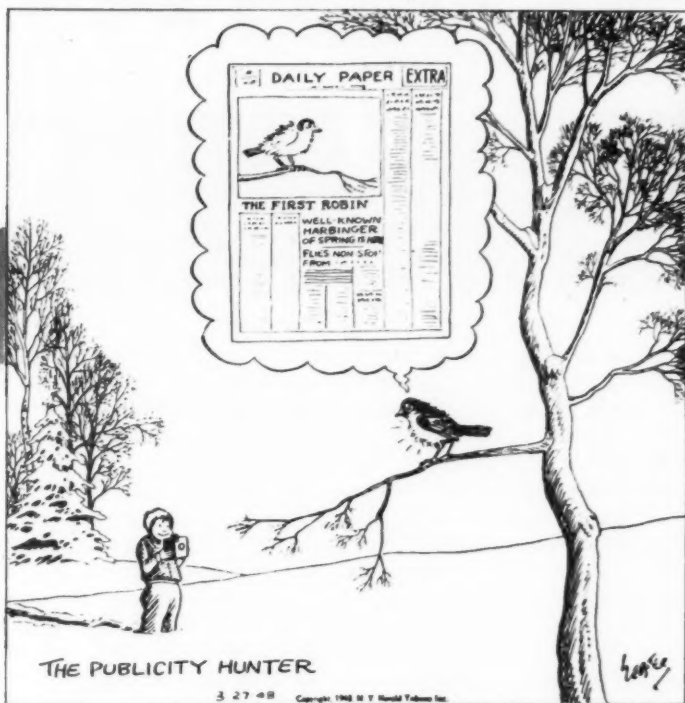
What is your first bird of spring and why? Let's round up some opinions for publication in our March-April issue.

Here in Hillsdale, New York, our first spring bird isn't a bird, but a bird-noise. When the chickadees stop making their winter *chickadee-dee-dee-dee*—and all of a sudden begin a great whistling of their *phee-bee phee-bee-bee*, then everybody telephones

Robin by W. Bryant Tyrrell

N. Y. Times
March 12, 1948





N. Y. Herald Tribune, March 27, 1948

to everybody else on the rural party line and says: "Well, I guess spring's about here. I heard the chickadees making their phoebe-noise today." This occurs several weeks before the first robin. The first robin means that spring is here; but it is the *phoebe-noise* call that is considered the announcement or harbinger of the season.

*Alan Devoe
Hillsdale
New York*

Out in Sebring, Ohio, where I used to live, our group of birders considered the crow (believe it or not) as the first bird of spring!

Don Eckelberry

I'm not long enough in one place to really know which is the first bird of spring but the tree swallows were our initial local gulf coast migrants last March. Of course, there is a great shifting about and departure of pintails and other waterfowl but there aren't spring birds in this latitude, nohow!

Much depends on who and where. To local ordinary citizens on the gulf coast of Southern Texas

it is really spring when the scissor-tailed flycatcher returns. In Louisiana in March people look at and listen to laughing gulls flying over the town of Abbeville and say, "Ah, spring!" But others scoff at this and say it isn't really spring until the pecan trees blossom. This clique claims birds as harbingers are strictly unreliable!

Bob Allen

In Minnesota the arrival of the horned larks in late February is emblematic of the return of spring. Usually the horned larks return to a bleak, snow-clad countryside that gives little promise of the awakening that is to come. These birds cluster along the roadsides to find what meager sustenance they can on the highway shoulders that have been bared by the snowplows. We in Minnesota know that when the horned larks come, spring cannot be far behind. Shortly after the feathered omens arrived last year, however, the mercury plunged to 27 degrees below zero, which made some of us think that perhaps we had better select a new emblem of spring.

*Ken Morrison
Minnesota*

U N D E R S T A N D I N G



AT the core of every man there lives a small boy. Within the boy there is contained an animal, a mammal; and within the animal a bird; and within the bird a reptile and a fish, and so back and back to our origins in vegetation, in the rock and water and the soil. We are put together, body and mind, like a set of Chinese boxes, or a continuum of concentric circles.

It is no mere theory and whimsicality to say so. It is the way science clearly reads and interprets us. We recapitulate, each individual of us, the aeons of planetary life. Each individual of us encloses and contains, layer inside layer, circle within circle, all the long stages of the ancestral self, going back to the first stir of the world's aliveness.

As our outermost layer, our latest whorl at the periphery of the concentric circles of the self, we have a faculty of self-consciousness and ordered thought. It gives us a distinctive power of abstraction and conceptuality. We are enabled to look with intellectual insight upon things, see two and two, put them together, and (with carefulness and good luck) get four. We are enabled to engage in the enterprises of business and science and law-making and international diplomacy and all the rest of it. We can think large thoughts, as raccoons cannot, nor sparrows nor watersnakes nor the dace in the creek nor the water-reeds that bend and swirl to the cool glidings of the current.

It is a valuable thing, obviously, this latest whorl in the structure of our self. What Henry Thoreau in his pungent way called our "top-head" is indeed a cherishable and special topping. But it is only the topping. It is only the latest accretion upon the myriad-layered structure of the self; a self that has also its deeper area of raccoonness, and its yet deeper area which we share with birds, and inside that a snake-part and a fish-part and at last a heart of vegetableness and a core that is earth.

All this does not seem to us, today, a strange or startling concept. It has become familiar to us; we are at home with it. We readily forget what a new thing it is, this realization of our profound animalness and indeed community with all the life of earth, and this understanding, at the same time, of the special development, the self-conscious and rational "top-head," by which we are set above and apart. Fifty years ago we were very far from such a way of looking at ourselves and at the rest of nature. We were largely split into two schools or camps. There were those who, eager to maintain man's specialness and superiority as a "spiritual" being, denied to animals any psychic life, allowing them only an unconscious and willy-nilly kind of behavior in obedience to the drive and thrust of instinct. Man was man, the thinking being, made in the image of his Creator; and the rest of the



creatures of earth, though dressed in fur or feathers, were but machines. Against this view was opposed the school of nature-loving sentimentalists, who saw birds and animals as virtually indistinguishable from human beings. A mother bird was a human mother, only littler and in feathers. Wolves were as "brave," ants as devotedly "industrious," opossums as "lazy," as any human group of heroes and villains.

Fifty years ago there were those who raised an uproar at the earthy suggestion that men and foxes are after all, in a great area of their lives, very much alike; the common possessors of a common mammality, and of a whole common heritage from reptiles and fish and plants. Fifty years ago there were those who raised an uproar at the suggestion, on the other hand, that what goes on in the consciousness of a robin, brooding her eggs, is nothing at all like human mother-love, but is something altogether dimmer and different and lesser, belonging to another life-level entirely. And now, today, we have almost forgotten these old quarrelings, these half-views. We have a new view, and a wholer one: an understanding of evolutionary development which lets us see how tremendous an area of ourselves is indeed fox-self, bird-self, fish-self, snake-self, but which also lets us see how we have evolutionarily added to our human selves until bird-consciousness and man-consciousness have become very different

things. We are not cut off, now, from honestly and contentedly acknowledging our mammalian membership, our animal drives and juices; and the acknowledgment has done wonders for our sensible and healthy adjustment. Likewise we are not cut off, now, from acknowledging that animals and birds are not little men and women, undergoing the life-experience in the same terms in which we undergo it. Their selves are only the deep parts of ourselves. They are the fetus-self, the infant-self, the self when consciousness is only glimmering and partial. It has become commonplace to us today to realize and acknowledge the truth which John Burroughs was a pioneer in saying half a century ago. "Are animals people?" he said. "Well, they are our childhood."

This is the fiftieth anniversary of the publication of *Audubon Magazine*. It was in the year of the magazine's inception, as *Bird-Lore*, that there were published two nature books into which I have lately been looking. Here is a quotation from the first of them:

"Animals' lives are lived entirely according to instinct. Having no power of thought, they are completely different from Man."

The fifty years of *Audubon Magazine's* life have brought enormous progress in the great practical fields of conservation, wildlife protection, and many a related matter. But it has been at least as great a progress, surely, that when we read

that passage now we smile. We do more than smile, I hope, when we read this passage in the second book:

"The grieving mother robin perched on the rim of the plundered nest, where only an hour ago her babies had been stretching their little wings and looking forward to the glorious experience of their first flight. They would never fly now. All the mother's hopes for them had come to nothing. She perched motionless, her red breast a turmoil of sorrow."

We do not look at birds, today, and entertain the foolish fancy that nestlings can "look forward," as might man who consciously inhabits a time-world, to some event they envision happening in the future. We do not falsify our concept of the bird's world with any sentimental absurdity about mother birds feeling what humanly we mean by "grief," or any pathetic nonsense about a bird's "hope" or its "turmoil of sorrow." We know now that this sort of anthropomorphism is an even greater misunderstanding than is the opposite view, in the first excerpt, that all the creatures other than ourselves have no life but that of "instinct." Today we know better the structure of our own self. We know how each of us traces—how each of us in fact encloses and contains—the whole of biological history, layer within layer, era within era, creature within creature. A gorilla—allowing for certain differences of special anatomical development, sensory acuities, and instinctive trends—is *ourselves* when we were a small boy. Its life-experience is to that degree *our own*; we are thereby a part of the *ape-brotherhood*. A bird is *ourselves* a little earlier in our life, individual or racial; and fishness and snakesness and plantness come together with humanness in an identity at a stage a little earlier than that. We look at our non-human relatives, today, and perforce say: Brother. Also we look at them and know that, though the brotherhood is real and deep in all the ancient interior of our common selves, there is a part of us which is uniquely *our own*, not shared. We

know we are brothers. We know we are not twins.

Knowing these things, we see ourselves and our world with a clearer eye. We are that much the wiser, in a fundamental area of thinking. We owe it, in no small part, to Dr. Frank Chapman, and his long years of patient studies to show what birds are and what men are. (Shall I ever forget how in my early 'teens I wrote a long set of questions, all pompous with youthful inflation, and how patiently and expertly he answered them and unstuffed my mind of a load of rubbish?) We owe it to William Beebe—he was "C. William Beebe" in the early *Bird-Lore* days—and his papers combining a rigid scientific accuracy with a warmth and insight into the everlasting fact that an owl and ourselves, so to speak, share the same grandfather. We owe it to Henry Fairfield Osborn, and his gift for showing us the animalness inside ourselves, and to Clinton Abbott and his gift for showing us the quality of humanness inside a bird. We owe it to T. Gilbert Pearson, to Witmer Stone, to A. C. Bent, to George Shiras . . . but the list is too long for writing.

Over fifty years, there has been great progress in many lines that must concern every nature-minded man. It is possible to point to acts of pro-wildlife legislation, to sanctuaries established and growing, to ecological studies undertaken. But it is also possible to suggest, I think, that one of the most significant forms of progress has been in the promotion of an accurate understanding of animals and of all non-human creatures and of what their inner lives are like. "Know thyself" is a fine motto. "Know thyself and thy brethren" is perhaps an even better one. For we are not alone on this planet. We share it with a multitude of fellow-beings, in fur, feathers, scales, chitin, and bark. To know them as they are, and ourselves as we are, is surely a great goal in the adventure of understanding. We have come a long, long way in fifty years.

Audubon Magazine

Presents

A NEW SERIES OF PAINTINGS OF



OUR
BEAUTIFUL
WESTERN
BIRDS

Photograph by Gene Heil.

BY ROGER TORY PETERSON

To celebrate our fiftieth anniversary, we are planning to reproduce in full color, twelve paintings of western birds. Two paintings will be reproduced in each issue.



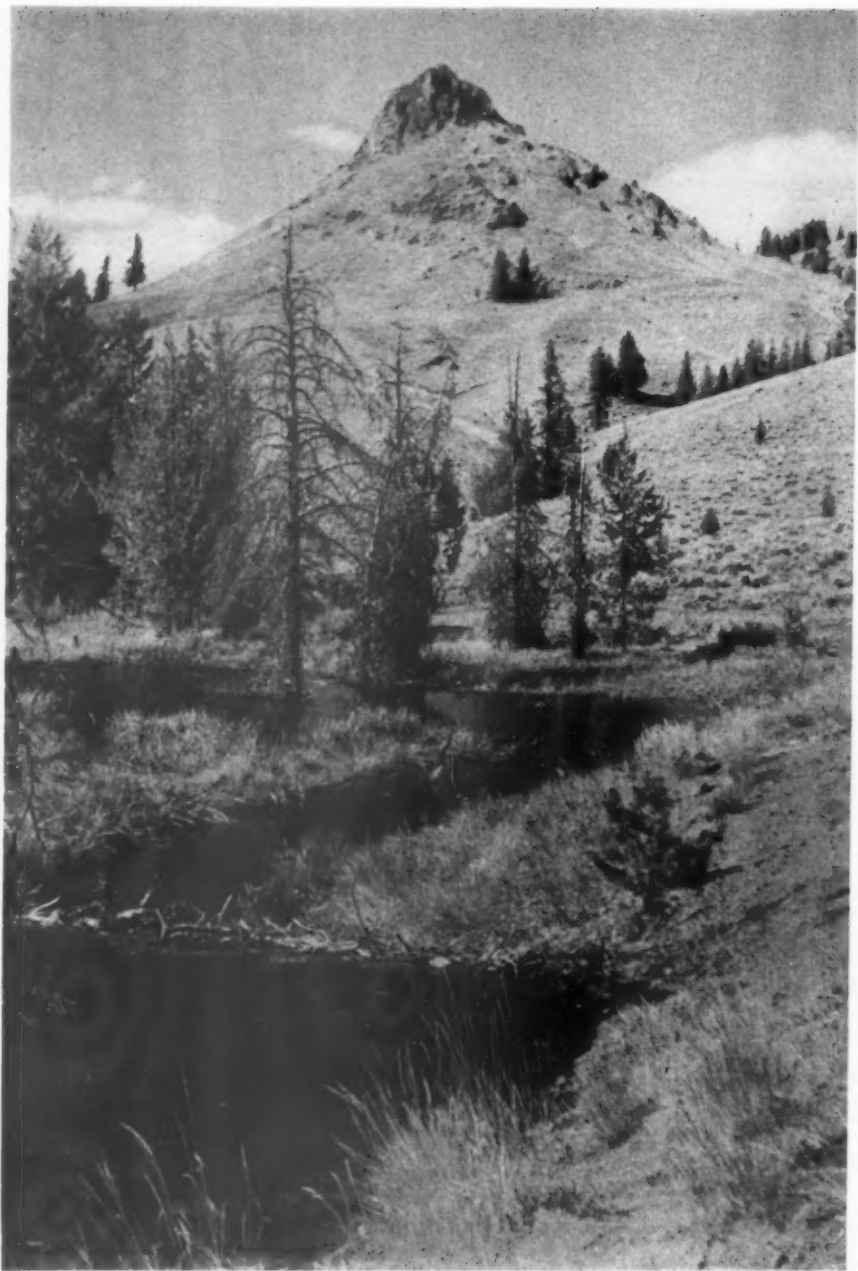
WESTERN Tanager

Why, out of the whole tanager tribe, a family of four hundred tropical species, only *two* should be adventurous enough to travel each year to Canada, is one of the many mysteries of migration. One, the scarlet tanager, lives in the eastern states; the other, shown here, occupies the West. They draw an invisible "no trespass" line across the Great Plains. They are counterparts for sure, even singing their short husky phrases in a similar manner, but the scarlet tanager is more partial to oaks, whereas the western tanager would rather have pines (although it often lives in oaks too).



BULLOCK'S ORIOLE

Like a flame, Bullock's oriole flashes through the cottonwoods that cluster about the ranch houses. Although there are other orioles in the arid Southwest, this is the only one familiar to most westerners. Arriving in April or May, it announces itself with an accented piping song or a chatter and swings its felt-like hammock from a willow, cottonwood or sycamore, usually near water—along a river or an irrigation ditch. The western counterpart of the Baltimore oriole, so typical of elm-shaded streets in eastern towns, it differs in having a black crown and orange cheeks.



Photograph by Henry H. Graham

Beaver dams along the headwaters in Idaho. When there were trees and beavers, nature was able to take care of the watershed problem pretty well. And what's more, the sparkling streams were full of trout!

THE PRESIDENT *Reports* TO YOU

IN cooperation with the Royal Ontario Museum of Zoology and the Federation of Ontario Naturalists, the Audubon Society of Canada was recently organized, with stated objectives essentially the same as those of your Society, whose directors favor extension of the Society's activities in the Dominion. In recent years we have been indebted to the Whittemore Publishing Company, Ltd., of Toronto for promotion in Canada of Audubon Junior Clubs; this largely through the medium of its attractive, illustrated magazine, *Canadian Nature*. Now the Audubon Society of Canada has acquired the Whittemore Publishing Company, Ltd., and is happy to announce that Mr. Reginald Whittemore, to whom is attributable the success of *Canadian Nature*, will continue as its editor.



The content of this magazine, which has a circulation of some 25,000, principally in the Canadian schools, is especially designed for school use. Its continued publication by Audubon Society of Canada is looked upon by its directors and those of the National Society as, in essence, an extension of children's edu-

cational activities rather than as a magazine enterprise. *Canadian Nature* is not competitive with *Audubon Magazine*, which is designed primarily for adult readers.

It is likely that *Canadian Nature* will before long appear in an American edition under a different name and thus be made available more widely for school use in the United States. Initial activities of the Audubon Society of Canada will be limited to the publication and distribution of *Canadian Nature*, the continued promotion of organization of Audubon Junior Clubs in the Dominion, and joining in the sponsorship of Audubon Screen Tours in Canadian cities.

WATERSHED TROUBLE

One of the most disturbing elements in the national conservation picture at the present time is what might be termed the insane race between the Bureau of Reclamation and the U. S. Engineers to sew up with Congressionally authorized projects for dams, for irrigation, flood control or power purposes, every watershed in the United States; to thus tie them up before its competitor may do so. While it is true that recent legislation requires that these agencies obtain the advice of the Fish and Wildlife Service as to the biological consequences of such construction, the fact of the matter is that Congressional appropriation of funds to finance the biological checking up is so inadequate that it would probably take about ten years for the Service to complete investigations with regard to the projects already authorized by Congress, let alone those which it may authorize in the future. It would appear to us that



Who can place a dollar value on such a scene?

U.S. Forest Service

this is a situation which calls for administrative ironing out by the President of the United States. It would seem doubtful that Congress, whose members are sensitive to local pressures, would be able to get very far with a restrictive program on projects of this character.

WHAT PRICE GLORY OF NATURE?

When such agencies as the Bureau of Reclamation present their recommendations to the Congress, it is usual for them to evaluate in dollars the expected benefits. As a consequence, there has been pressure on conservationists and on Bureau administrators to likewise evaluate in dollars the benefits of, let us say, wilderness areas, the scientific, educational and recreational uses of which might be destroyed in whole or in part. It seems to us no greater mistake could be made than to attempt to evaluate intangibles in dollars. Who is there who can put a dollar value on human health and happiness, on starlit skies, sunsets, or a snow-capped range of mountain peaks?

Were we to evaluate the intangibles at double whatever dollar value might be placed on the sustained yield material benefits of construction of a dam, who is there who could possibly prove such evaluation in error? This is not to be construed as a point of view opposed to wise commercial use of natural

resources, but it seems to us extremely important that a reasonable proportion of the country's finest scenic and recreational areas be perpetually maintained as such, in the public interest.

As things now are, there is constantly recurring pressure to permit the destruction or serious alteration of such areas for the presumed immediate tangible benefits of relatively few people. Perhaps one of the basic difficulties lies in the existing legal priorities represented by the right to file withdrawals of land for mining, flood control, power and irrigation purposes. This means that such administrators of public lands as the National Park Service and the U. S. Forest Service do not have full jurisdiction over the lands which they are responsible for administering.

THE DUCK STAMP ACT

You will remember that there was a proposal before recent Congresses to amend the Duck Stamp Act to accomplish the following purposes: (1) to raise the price of the stamp; (2) to remove, in part at least, the prevailing restriction on the amount of avails that might be used for enforcement purposes; (3) to give discretion to the Secretary of the Interior to open the waterfowl refuges in part to hunting when, in his opinion, the waterfowl population is not "on a decline." Your Society favored the first

two objectives and opposed the third for reasons set forth on page 171 of the May-June, 1947 issue of your magazine.

It would now appear that an effort may be made to obtain approval in the present session of Congress of an amendment which would raise the price of the stamp from \$1.00 to \$3.00, make available for enforcement purposes up to 25 per cent, instead of 10 per cent, of the avails of the sales of the stamps, and insert the words "wildlife management areas and" between the words "not less than 75 per cent shall be available for acquisition and maintenance of" and the words "inviolate refuges."

The passage of any such provision would mean that thereafter the Department of Interior might open to hunting, in whole or in part, any of the areas thereafter acquired, though not the previously acquired inviolate refuges.

Your directors again considered this matter at a recent meeting and unanimously voted to sustain the position which your Society has heretofore taken, namely, to (1) favor the increase in the price of the stamp, (2) favor the increase in the percentage of the avails that may be used for enforcement, and (3) oppose the opening of the waterfowl refuges, in whole or in part, to hunting and thus favor continuance of the present policy of using Duck Stamp monies for the

acquisition and maintenance of inviolate refuges. It appears to your directors that a refuge ceases to be a refuge when opened in part to hunting. This is not to be construed as representing an anti-hunting attitude. If public hunting grounds appear needed, your Society favors the finding of other means of financing their establishment and maintenance than the use of the Duck Stamp money.

For the information of those readers who may quite recently have become members of the Society or subscribers to the magazine, it would seem desirable to again state that your Society has never been opposed to field sports legally pursued, but that it does recognize the validity of the law of supply and demand and the consequent need of regulation of deliberate take such that an adequate breeding stock may be preserved.

SCOUT ENDOWS SAN GABRIEL

Our San Gabriel River Wildlife Sanctuary in California, only twelve miles from the center of downtown Los Angeles, is visited by many groups of Scouts and school children, as well as by students in zoology and biology classes in nearby universities and colleges. Many times during a recent five-week period Scout Arlen Bell, Troop 5, Rosemead,

Birding in the San Gabriel River Wildlife Sanctuary in California.

Allan D. Cruickshank



California, hiked the sanctuary trails through fields, woodland and marshy river bottom, learning his "forty birds," the first requirement for the Bird Study Merit Badge. He had help, but also the thrill of discovery. How many youngsters are able to include a white-tailed kite and a whistling swan in their first 50 bird identifications? When the time came for his examination, he made arrangement through his Council to have the National Audubon staff qualified as examiners because, he said, the sanctuary offers facilities for all the requirements. He presented our nature museum with fine examples of nesting box and feeding station. For the last requirement, concerning protection, refuges and sanctuaries, he said he wanted to start a fund with \$1.00, so that Scouts could see this primitive area surrounded by cities and towns and learn about the wildlife that once was everywhere. A small but significant endowment, is it not?

CONVENTION 1949

Our Detroit branch, the Detroit Audubon Society, has invited the National Society to hold its 1949 Annual Convention in Detroit and your directors have unanimously voted to accept that invitation. Our friends of the Detroit branch have accomplished wonders in developing their program in recent years, such that the Detroit Society has attained great prestige and wide influence in community affairs. They are gifted with energy, enthusiasm and know-how. We are confident that they will stage next October the greatest Annual Convention that the National Society has ever held. We hope to announce the specific dates in our next issue. The location of this Convention should be of special interest to our friends in our many branches and affiliates throughout the midwestern states.

IN SUNNY FLORIDA

In south Florida this winter the vol-

ume of Audubon Wildlife Tours has been stepped up greatly. Again Alexander Sprunt, Jr., leads those in February, March and early April, based at Okeechobee. Again Charles Brookfield, this year with three aides, leads those out of Miami into the Everglades National Park and Wildlife Refuge.

Your Society is not only engaged in an educational program in conducting these tours, but desires, through interesting an ever growing number of people in national parks, wildlife refuges and sanctuaries, to continuously build up a larger body of public opinion wishing to support continued maintenance of such areas, as a matter of wise governmental policy. We are indebted to the National Park Service, the U. S. Fish and Wildlife Service, and our own tour leaders and sanctuary wardens for the opportunity to give increasing thousands of people a chance to see at first hand the intrinsic values of such areas and the spectacle of their abundant wildlife and flora.

THE AUDUBON PROGRAM FORGES AHEAD

It won't be long now before the four Audubon Nature Camps in Maine, Connecticut, Texas and California will again be operating, the first for its eleventh season, the last two for their second. Substantially the same staffs will return in 1949, and the camps will be held at the same locations as in 1948. Prospectuses with full particulars are now available. It is the hope of your Society that it may in due course succeed in establishing and administering upwards of a dozen of these summer camps for adults, geographically distributed such that teachers and other youth leaders may be able to attend without great travel expense. Through these camps, the Screen Tours, and other lectures on a continent-wide basis, and the Wildlife Tours by station wagon and boat, your Society is giving an ever increasing number of people opportunity to participate actively in the Audubon program.

A Conservationist's Philosophy

(Continued from page 18)

has generally worked out the most satisfactory combinations that her material allows. Even when we believe that we can improve upon her, we shall proceed with extreme caution. Above all we shall be wary in introducing wild animals and plants into strange environments where their behavior cannot be predicted. Whenever we are tempted to do so, we shall study the fantastic history of the introduction of animals and plants into Australia and New Zealand—if the examples of such introductions that have come under our own observation at home do not suffice to teach us wisdom.

The fifth point in the conservationist's philosophy is the necessity of teaching others. Without general support, conservation can accomplish little. Since most men take the short view, preferring immediate returns to an assured future, it requires long and patient education to bring them to understand and support the objectives of the conservationist. This education must begin in the primary schools, with young and flexible minds that have not yet hardened into the stubborn and often distorted opinions of later life. Above all, this education must combat the age-old flattering view, morally and materially pernicious, that man is something above and apart from nature. We must substitute the conviction that we are one among many members of a vast community of living things as worthy as ourselves of study and contemplation. And we should make as a test of the highest culture the capacity to enjoy the earth and its creatures without destroying them.

The sixth point in the conservationist's philosophy is reverence for living things. As a conservationist he must deal with populations and combinations of populations—with life in the mass. A great danger of dealing with things in large aggregates is that it often causes us to lose respect for the individual. The

conservationist may at times find himself in the position of the philosopher so absorbed in his grandiose schemes for the betterment and happiness of humanity that he forgets his own wife and children are starving. He needs constantly and deliberately to remind himself that populations of animals are composed of individuals whose capacities for joy and suffering he can only surmise. In the absence of positive experience of the inner life of any non-human creature, he must always give that creature the benefit of the doubt.

A philosophy matures slowly. There are problems which philosophers have been pondering for thousands of years, and may well consider at their leisure for as many more, for they seek timeless truths. The conservationist can ill afford to proceed at so deliberate a pace to perfect his philosophy. The value of a philosophy of conservation depends upon the existence of something worth conserving. If destruction continues for a few centuries longer, accelerated at the same rate which has prevailed during the last two centuries, there will be no natural resources on earth worth preserving. Even if his philosophy fall short of perfection, the conservationist must use it immediately as a working tool. As I write, the forests are dwindling, the hillsides are eroding, the soil is losing its fertility, wild creatures are being killed faster than they reproduce. There is an urgency in conservation as in no other field of human endeavor. Our aims are noble, our purpose firm, our comrades trustworthy. But can we act swiftly enough to preserve the grandeur and beauty of nature, its fecundity upon which the existence of ourselves and all other creatures depends, while there are still enough of these things left to inspire the effort? Each true conservationist must ask himself how he can speed his cause *now*, before the sands run out.

Does the life of the songbird have more significance than the life of the hawk? The author looks beyond human prejudice in her search for nature's answer.



By Louise de Kiriline

Illustrations by
the author

Thus they s

A MUFFLED scream, the sharp snapping sound of wings whipping against the nesting branch, and the swift retreat of a trim falcon out over the lake, this was all I heard and saw of the tragedy.

Up there, high in the top of the white pine that stood overshadowing my Loghouse at Pimisi Bay, Ontario, was the nest of a Blackburnian warbler. I

had watched it ever since the day when the pretty female, dressed in "black and white and a dash of orange," had been busy finishing off the nest with a lining of fine rootlets and long hairs. I had watched it during twelve days of incubation, always with a feeling of anxiety lest a red squirrel should discover it while cutting down the cones that hung in heavy gummy clusters

around it. But I never thought of the pigeon hawk.

When the young hatched I could not see them, but I envisioned the half-transparent, half-naked blind baby birds opening yellow-pinkish cavities towards their parents, as with airy swoops the bright-colored warblers alighted on the branch, shaking it a little. The female still brooded the young for long periods to keep them warm or to shield them from too much sunshine. But the rate of their feedings was increasing as the young grew and thrived on their wormy diet.

The birds were five days old when, on a bright and warm summer morning, the mother bird went foraging in the red pine nearby. The sight of millions of swarming shadflies, sticking to pine needles and twigs wherever they found footing, had brought her out of the nest and she filled her crop with them. With her bill full she swung back toward the

That afternoon it began to rain. Great heavy drops of cooling water fell and broke with a splash and a humid fog hung about the pinetops. Every time I looked, the nest was unprotected. I shuddered thinking of the deathly chill that enveloped those birdlings. Time and again I awoke during the night, hearing the rain pouring down incessantly over the woods. Vehemently, I reproached nature for instructing the dead little mother to build her nest so far up out of my reach that I could not save her young.

The next morning the male continued to visit the nest to feed one, perhaps two, nestlings that were still alive. He came and went true to the duties that were his. He sang more beautifully and consistently than I had heard him sing for many days.

Finally, there was no opened bill to greet him. But to birds facts are not proved by reason but by endless repe-

y shall perish

nest over the short distance that separated the red and the white pine trees.

Then it happened. In a split second the deed was done, timed so perfectly that the little bird neither heard nor saw death coming upon her on sharp-pointed wings. At first I did not realize what had happened. It had been too swift, too momentous, too mortal.

What would happen next? What were the chances of survival of those motherless ones up there in the pinetop? The male continued to come and go, following his accustomed and ordained rhythm of feeding and foraging. Would his instinct tell him of the emergency, whisper to him of the necessity to brood, to warm his nestful of offspring now that the female was no longer there to do it?

tition of circumstances. He left the nest and returned again. This time he pushed a meal into one yellow-pink cavity that weakly lifted itself toward him. After that, more and more often, he was obliged to eat the food that he had brought for the weakening nestlings. When, at last, they no longer accepted his offerings, his visits became rarer. Finally, he flew away for the last time, and song after song burst from his quivering throat.

I felt better when I knew that all of the young ones were dead. Their dying must have been easy and merciful, perhaps they just fell asleep never to awaken. It was only to me, mortal human, that the inexorable fate falling upon them appeared so heart-breaking.

Then the thought came to me:—before I passed judgment upon the murderer, before I decided what was right and what was wrong, I must learn more about the pigeon hawk. For somewhere, hidden deeply within the fundamental laws of nature, I felt there must exist an explanation, a rightfulness, a logical coordination of life and death, that would relieve my feelings of the sense of cruelty and perhaps even justify the hawk's killing of the female warbler.

On the east side of Brulé Hill, in the most magnificent white pine that stood there, I found the pigeon hawk. A scorching fire had swept over the hill fourteen years ago and left a regiment of charred pine tree skeletons pointing skywards from its crest. The female sat on a stick nest securely supported by stout branches against the trunk of the tree.

At that moment she struck me as the

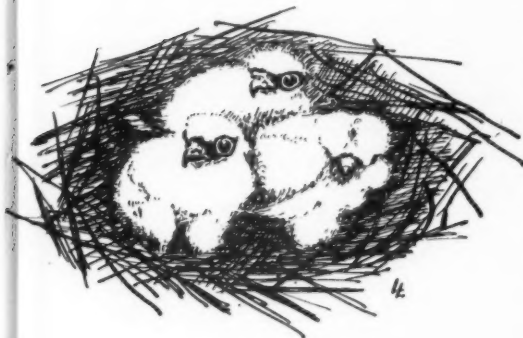
most beautiful creature nature ever created. What poise, what bearing, what grace of outline! Her color was dark, dark brown with a slaty shine when a sunray played upon her back. Her long tail, held at an angle over the rim of the nest, suggested broad bands of darker and lighter brown. On her breast the ground color of her body lightened to creamy buff with bold dark stripes creating a striking pattern. Her hooked beak, toothed on each side, gave her an air of nobility. Over her shining eye, nature had penciled a fine light line, enhancing the clarity, the depth and far-sightedness of her wide steady gaze. In all the time of our acquaintance, through the vicissitudes of our hostility to forbearance and understanding, my impression of her beauty never lessened. Beautiful she was, whatever she did, from the beginning unto the end.

Behind on the crest of the hill,

their apparent reason to



perched motionless in the top of a burned-out pine, the male observed my approach with sphinx-like solemnity. He was smaller than she, a fraction lighter in color. A stiff easterly wind swept up the hillside and over the crest and ruffled the feathers of the bird. He sat unmoved.



on to kill is to eat

The female bobbed her head, perhaps to impress me, strange and unwanted intruder, with her animosity. Suddenly, she arose and her long cream-colored pantaloons, with their tear-drop markings, revealed her strong yellow legs and talons. She began to scream, sharply, loudly, "keeyickyickyick," a farflung, strident protest against the violation of her inherent right of seclusion. The male, lowering his head between his shoulders and lifting his trim wings, answered her.

She took off. And then both birds began an aerial display, the like of which I had never seen. Borne on the high wind, lifted by the up-currents of air and riding the downdrafts, caught abreast by unexpected gusts of wind, which made them turn, wheel, glide through the trees at incredible angles with fantastic speed and agility, they

swept and circled in a dance of hostility down over me, up and above me. I stood breathless, listening to the rush of air through their wings as they swooped low over me, fascinated by the graceful motions of these two streamlined falcons, by their superb control of every law of flight governing an airborne body.

Suddenly this aerial war-dance ended. The male flew screaming out over the lake. The female, her yellow landing-gear braced, alighted squat on a pinetop that bent weakly under her weight. She bobbed her head, looked down upon me, then threw an anxious glance toward her nest. She screamed, circled the nesting tree, then swooping down, alighted on the rim of the nest. With the same kind of protecting snuggling movement as any other brooding bird would display, she settled on her eggs.

The tree overlooked a sheltered bay on the lake that opened widely beyond to the north. One might have supposed that all the small birds would shun so dangerous a neighborhood. But it was by no means a lifeless place. A yellow-green Nashville warbler sang from an exposed perch on his nesting grounds that actually overlapped the falcons' territory. Below in the thicket, not a stone's throw from the hawks' nest, a veery, an olive-backed thrush, some Canada warblers, redstarts and yellowthroats had hidden their nests. On the west side, a pair of robins were feeding early young in their mud-lined home.

All of these birds sang, fed, and meandered around, often going right into the hawks' nesting tree, apparently in perfect safety. When sighting the hawks the small birds behaved exactly as they usually do when other birds come into their nesting territories. They would scold roundly, and even attack the birds of prey twice their own size. The robins, being under high tension at this stage of their nesting, would not tolerate the sight of the falcons. Once when the female hawk rested in the top of a burned-out pine, guarding the nest while

the male was away, the two robins worried her like buzzing bees. Not fifteen feet away from her they perched scolding, and more than once they dive-bombed the hawk, nearly unseating her. The falcon only shifted on her perch, bobbed her head and regarded her attackers with a piercing eye. Although the robins were well within the hawk territory and must have realized they had not the slightest chance of escape had she moved to attack, never once did the hawk retaliate. Why, why, I asked myself? What a meal within reach of her talons! Was she not hungry? Why did she not avenge herself?

In the course of time the riddle was solved. These two hawks were never seen to hunt within their own territory and hence their neighbors lived with them in safety. The hawk boundary ran all around Brulé Hill, but beyond that line, the rules of the hunt were in force. The only time I saw the hawk break the safety zone convention was one day when a foolish young hairy woodpecker trespassed quite innocently. The female hawk had just finished feeding her

of these had but to show itself within half a mile and the hawk boundary leaped out to meet it. Then the small falcons streaked off to the attack with reckless courage and wild screams. That their beaks and talons were effective, the grunts and squawks of the attacked birds bore witness. The hawks attacked from above and sometimes from below, turning in mid-air with raking talons against the unprotected soft parts of the pursued, forcing their enemies to lift awkwardly to escape injury. They were invincible in their territorial defense. Not a bird was large enough to daunt them. With the great blue heron, they carried their intolerance of him almost to the ridiculous. That poor awkward giant with his slow wingbeat and long dangling legs, perfectly harmless, perfectly innocent of any predatory intent, was never permitted a peaceful frog luncheon in the sheltered bay below the nest. To see the male falcon, mosquito-like in comparison, taking long rides on the back of the squawking heron, was laughable.

During incubation and after the

up there high in

young. She looked at the woodpecker, swiftly made up her mind and dashed after him. What a ride that woodpecker got! But there was nothing wrong with his instinctive reactions. He dodged around tree trunks and, finally, by the feathers of his tail saved himself in the thicket below the hill. Why the hawk broke the small-bird safety rule this time is difficult to explain. Was the trespasser too big to come under the small bird category?

There was a size limit to the birds allowed free passage through the hawk domain and the falcons' behavior toward larger birds, such as crows, and other hawks, changed altogether. One

young falcons had hatched, the male did most of the hunting. He streaked through the trees, his head low between his shoulders. On past the nest he came, with his limp prey dangling from his talons. The female screamed her welcome long before I saw him and left the nest in pursuit. With acrobatic precision the transfer of the prey often took place in mid-air. Sometimes the male perched, held out the prey to his mate, and she took it from him on the wing. She plucked it and ate it hungrily in some burned-out pine. Later, when she was feeding the young, she took it to the nest and plucked it, sitting on the rim. Then she fed it to the nestlings piece-

meal. After the hunt, the male rested for a long time, sometimes for hours, perched like an immobile statue in the top of a tree.

Mealtimes did not come often, twice

ence of mind. I have seen the falcon shoot past a "frozen" white-throated sparrow, so obvious I could not believe the hawk could have missed it. The sporting odds in nature have been fairly



h in the white pine

or three times, perhaps four times a day when the young were hatched. There was no hunting between meals, not even when a tasty prize presented itself tantalizingly within reach. They ate when they were hungry, in order to live. I never saw them kill simply for the pleasure of killing.

In spite of his agility and masterly hunting talent, the pigeon hawk does not come easily by his living. He hunts by sight, quick dash, and surprise. His prey—insect, small rodent or bird—is small, wary, swift, and expert at dodging. I have seen a kingbird, conspicuous both in looks and behavior and not a fast flier, elude him because of its pres-

divided between hunter and prey to the benefit of both.

Having thus studied and gradually discovered the characteristics of the pigeon hawks and their specific traits, my sympathies for them grew. I could not help but admire their devotion to family and to each other; their attitude of "live and let live" which seemed inviolate in their home territory; their apparent refusal to kill for sport, the revelation of which shall never again permit me to call them murderers. Nevertheless, when watching a luckless purple finch being plucked, its blood-stained feathers descending slowly upon a faint wind, or the innocent head of a

scarlet tanager rolling on the ground beneath the perched falcon, or the young hawks fighting over a piece of gut belonging to a graceful thrush, I found it hard to suppress my emotion. It took me a long time to achieve a reconciliation between these two contradictory sides of nature against herself.

And yet, to all the hawks' victims, death came swiftly like a thunderbolt with hardly an instant of pain or mental anguish. Never once did they bring in a bird that was not dead. The force with which they struck was evidently enough to kill and the grip of their talons suppressed the last quivering reflexes.

If death is inevitable to all nature's creatures, could it strike at a more glorious moment than at the height of an accelerated life cycle, as in the case of the warbler, whatever the consequences? Or could it interfere more mercifully than when an accident or disease spelled the oncoming of the irrevocable end for a maimed or ailing bird and slowed up its tempo? It is only in human thought that the life is all-important in itself, its essence neglected for the sake of its preservation.

And how can it be said truthfully, that there is more rightfulness in a bird killing insects for the support of its life than in the hawk's killing of the bird for the support of its own existence?

living as part of all life. No creature is exempt from dying. In nature one life is merely a part of a link in the everlasting chain of evolution.

Nor is it to be forgotten, that if the pigeon hawk acts as a control upon the smaller bird populations to promote their strength and soundness as a living force, the hawks, in turn, are subject to exactly the same kind of control.

Among the enemies of the pigeon hawks are other hawks, crows and man. One day a crow alighted on the nest of the falcons and, had I not been there just at that moment, one or eventually all of the woolly hawklets doubtless would have served as a banquet for the crow. And then, as if to prove the immutable necessity of readjustment and counter-balance, misfortune befell the young hawks even as it did the young warblers. First the father hawk, then the mother disappeared, presumably having come to their end through man, the most inveterate slayer ever known.

But this time nature left the abandoned young birds in a more accessible place. I took them down and put them in an open nest cage from which two of them eventually departed safely. The inherent rights of the falcons, such as I had learned to understand them, supported this action of mine.

However difficult for us to admit the rightfulness of the victim as well as that

in this there may be drama but not tragedy

Each one, as I now see it, is either as wrong or as right as the other. Which life, in the light of evolution and the future, has more significance than the other, that of the progeny of the warbler, or the hawk, or of any other species? Nature, in its perpetuity, recognizes no higher or lower forms but only the

of the predator and to accept death not as an ending, but as an attribute of life, these opposing forces are part of the very essence of living. The sacrifice of life means the sustenance of animated power, for life exists and is nourished by life itself. In this there may be drama, but not tragedy.

Guide To Bird Attracting

A department in which our readers can share with each other what they have learned about how to attract birds.

Chickadee Cage

HERE are some "feeding" notes I'd like to share with *Audubon* readers:

1. Do not despise an ash pile. Pheasants, blue jays, sparrows of all kinds and even the squirrels like their scratch feed thrown onto the pile. With plenty of scratch feed they won't bother the other feeders so much.

2. Cover with felt one of the long-handled toasters you use to cook hamburgers at your out-of-door fireplace. To this wire or sew, with big stitches, flat pieces of suet and hang on the trunk of a tree. The birds can cling to the soft felt and their feet will not freeze to the metal edge.

3. My chickadee cage is my most cherished idea. Construct a stout wooden frame, 24" x 12" x 12". Cover the two square ends with board for a wind breaker. Make a wooden floor for the cage. Cover the front, top and back, with baby chick wire. Fasten the cage to brackets under the window sill close to the window glass. I use pieces of slate on top to keep out the snow. Put sunflower seed, peanut butter, and peanut halves through the meshes on top. Round out some of the holes with a soda bottle neck. The chickadees like round holes.

Wire a small tree with twigs left on it for perches to the front of the cage. I have about 25 chickadees feeding constantly at the cage. The only other birds that use it are the purple finches. Sparrows and juncos and other seed eaters prefer baby chick feed and crumbs. Squirrels can only look in longingly from the front.

Edith Lois Metcalf
Franklin, Mass.

Peanut Butter

THE Ridgewood Audubon Society boasts a good membership and many feeding stations, but with the cost of seed, suet, etc. rising all the time,

Winter Feeding

it is becoming a problem to maintain feeders at reasonable cost.

Year before last, as an experiment, we contacted several peanut butter manufacturers to see if it was possible to buy the butter in large quantities at wholesale price. It was, and the birds in this vicinity consumed 500 lbs. at 25¢ per lb. We were able to get it packed in 5 and 10 lb. containers for the convenience of those with small feeding stations. Large users no doubt could get a better price by ordering it in 100 lb. drums. This was grade A peanut butter. This past October we located another source of supply and ordered 750 lbs. at 20¢ per lb.

At my own feeding station I mix yellow cornmeal, rolled oats and crushed shredded wheat biscuits with the peanut butter and this is greedily consumed by my bluebirds, myrtle warblers, tree sparrows, juncos and practically all other winter birds.

The cereal manufacturers could render great service by giving condemned cartons of dry cereal to bird-feeding stations, instead of destroying them. I happen to have been fortunate enough to get hold of a couple of such cartons.

Elinor G. McEntee
Ridgewood, New Jersey

On-and-Off-the-Ground

IN winter, we operate three off-the-ground feeding trays. One is a covered sill-length tray at our first-floor, south living room window; another is a swiveled "airplane" type balanced upon a ball-bearing on a length of gas pipe sticking erect in the back lawn; the third is a Breck's auto-feeding

Photograph by Hal Harrison



"birds' filling station" suspended by a length of clothesline from the limb of a tree.

At some expense to the summer condition of our lawn we keep shoveled bare of snow all winter two areas of approximately 75 square feet each as well as another area almost the entire southern exposure of the house close against the cellar wall. In each of these areas several small packing boxes are set on edge to hold the proffered food. Our clothes reel stands in one of these areas and against this reel an old shed door leans with its long edge on the ground to form a satisfactory lean-to type shelter. The packing boxes provide individual feeding sanctuaries which minimize—if anything can—the driving tactics which characterize any feeding group of winter sparrows.

G. Hapgood Parks
Hartford, Conn.

Suet Feeder

PERHAPS Audubon readers will be interested in this efficient suet feeder which is really designed for women who cannot pound nails straight.

It is a little bag crocheted from carpet warp or other heavy twine. Any loose stitch will do. Make it about 6 in. long by 4 in. around. Put in a drawstring, stuff it with suet and hang from a trellis or tree branch. Small suet eaters love it and the sparrows dislike its swaying. I don't crochet, so I cut off orange bags and use them in the same way—they are not so good looking, of course.

Lorene Heineman
Plattsmouth, Nebr.

Come one, Come all!

MY bird feeder has a 3-way exit or entrance, plenty of roof covering for stormy weather, a 2 x 6 wire suet holder inside. The bird seed is well under cover and never gets wet.

This pine house, with cedar clapboards and shingles is 14" deep, 12" wide, and 15" from sill to top of roof. I can assure you that this feeder is extremely popular and birds too numerous to mention flock to it.

Olga M. Trowbridge
New Haven, Conn.



Figure 1

Rats!

IN residential areas, rats often become a problem at the bird-feeding tray. The most permanent method of rat control is removal of shelter and food. Junk, lumber and wood piles, stone heaps, etc. should be removed to eliminate places where rats can live. Bird feeders should be made ratproof. Ground feeding trays (Fig. 1) invite rats, but properly constructed tray (Fig. 2) is inaccessible to rats, and even to squirrels.

David E. Davis
Baltimore, Md.

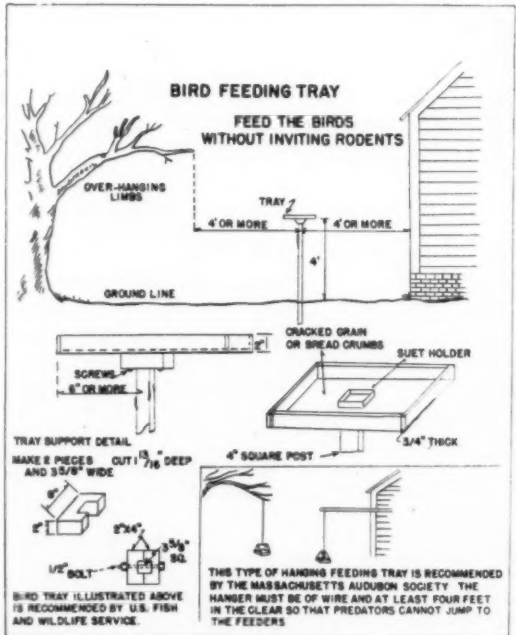
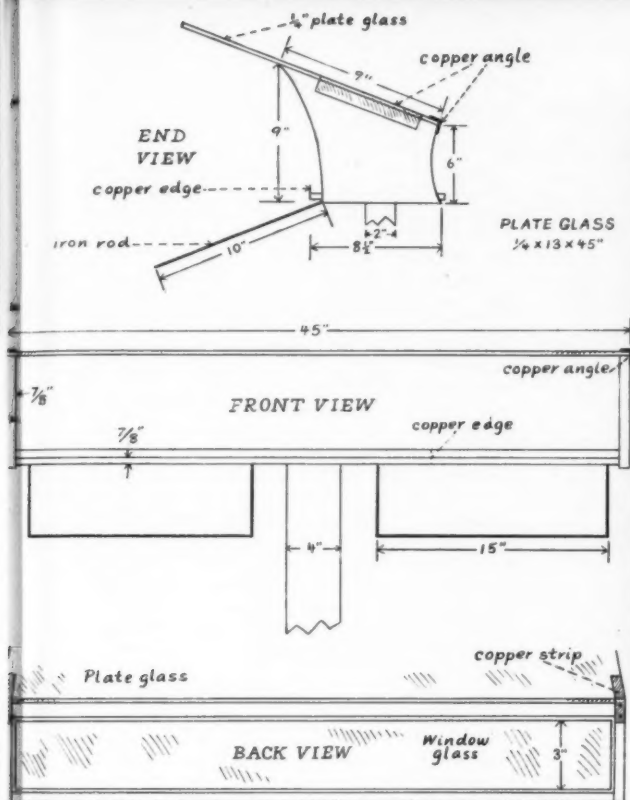


Figure 2

Spectator Sport

I ENCLOSE a photograph and a rough plan of our feeding station. This has been in use for quite a few years and has been remarkably success-



Bartlett Hendricks' glass feeder is attractive to the birds and the care of it makes a good project for his son.

ful. It was made from the point of view of the spectators, not just the birds. The feeder is so shallow and has so much glass that every bird visiting it can be seen perfectly. We made the shelf narrow so that birds would not hide one another, and provided the iron-rod perches so that they could sit around in plain sight. Most glass dealers are loaded with long, narrow strips of plate glass and it was no trick to get a sheet for nothing. I had the edges ground slightly so as to avoid being cut when putting food in the feeder.

The feeder was made with the bottom cut away to take the ends but it would have been just as easy, if not more so, to have the ends rabbeted. The feeder is white inside, green outside. The 4 x 4 post was notched to take the support under the feeder. The two screws through the post hold the feeder in position. A thin copper strip along the edge prevents the seed from being kicked out, while a few small holes provide drainage.

Bartlett Hendricks
Pittsfield, Mass.

SPRING IS COMING—AND PURPLE MARTINS

"How to attract purple martins" is a question addressed to Audubon House by hundreds of people every year. If you have good hints, send them to us for inclusion in this column.

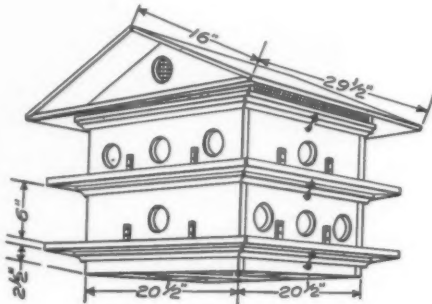
For more detailed plans of the house discussed below by Mr. Besson of the Audubon Society of Washington, D. C., write to the Superintendent of Documents, Washington, D. C., for the booklet entitled "Homes for Birds," U. S. Fish and Wildlife Service Conservation Bulletin No. 14. Price 10¢.

Around Washington, D. C.

ABOUT 1924 the first martin house was placed on our property at Chalk Point, Md. located on the shores of West River, an estuary of Chesapeake Bay, a few miles south of Annapolis, Md. In spite of reports that martins would not nest near the water, a few martins used the house the first summer. Since then two more houses were erected and three or four of our neighbors have followed our example, with martins using all of

these houses year after year in competition with English sparrows.

Our martin houses were placed on poles about 20' high. A temporary horizontal iron rod is fastened through a pole about 3' from the top, so that in placing the house on the pole, the ladder is not directly under the platform for the house. The house should be placed in the open, so that the birds may soar around their quarters especially when trying to show their young how to fly. Trees near one of our houses gradually grew larger, so the martins use the house only as a last resort.



Each of our houses is in three sections, the two lower stories have eight compartments 6" long by 6" wide. Three compartments are on opposite sides, and one compartment each is placed on the other two sides. A porch ledge about 3" in width is around each story. A 6 x 6 inch central space is used as an air shaft. The attic section has a pitched roof, with two compartments. There are two small round openings on each end of the attic for ventilation.

Four stove rods, or 1/4" pipe may be used at the corners to fasten the sections to the platform on top of the pole. Wing nuts could be used on the rods or pipes to tighten down the unit. If hooks are used to fasten the house together, be sure that they will not slip out of the screw eyes during summer storms.

The inside wooden partitions of 1/4" stock for the two lower stories are removable to facilitate cleaning. The houses are taken down each September, and go up during the first week of April. Martins are thus given a chance to compete with the sparrows who begin nest-building long before the martins arrive in spring. Sparrows fill their compartments with everything imaginable, leaving only small holes the size of their bodies as entrances. This makes it difficult for a martin to dislodge Mrs. Sparrow, especially when the occupant fills the hole with a very active bill and head.

E. John Besson
Washington, D. C.

In Ohio

EVERY summer for the past eight or nine years, we have had families of purple martins on our property. Regardless of the season or of the location of our residence, they have hunted us up each spring, reared their young, and remained with us throughout the summer.

The first year I was able to provide only a nail-keg, divided into compartments with sections of wall board. Giving this improvised house a coat of white paint, I erected it on a section of old gas-pipe about 12' long, fastening it to the corner-post of the garden about ten rods from the house. Only two pairs of tenants used the home that year. This same crude house with its six apartments served the next season with about the same results.

During the following winter I made a more modern house of ten compartments and arranged so that the upper story could be lifted off the lower one for cleaning. I find it advisable to take the house down for the winter for two reasons: first, that the apartments can be cleaned more readily, and secondly, so I can control the sparrows by erecting the house only after I see martins in the neighborhood. I usually have no more than one sparrow family with the martins during any one season; but this seems to give the rightful occupants little concern. In fact, the sparrows are so meek among several pairs of the larger birds that they sneak in and out of their apartment as if ashamed to be seen there.

Another precaution often overlooked in placing the martin house is being sure that it is kept forty-five or fifty feet from surrounding trees. Martins are expert aerialists and like to have their homes in the clear so that they can glide into them from any direction. They delight in sailing playfully about their dwelling before alighting.

Again, the house is often placed on top of the garage at the highest point of the roof. I moved into one property where the martin home was so placed, and was told by the former owners of the property that the birds never used the box. By raising it 6' above the old location, I had two or three pairs of martins the first summer, though their nests were within 30' of our upstairs window.

My present martin house, now in its sixth successful season, is made for ten families. Each apartment measures 6" each way with a round entrance 2" across, and the box mounted on 16' of 1 1/2" gas-pipe. On the 23rd of April last year I erected the house after noticing a pair of martins about the place the day before. The following morning three of the birds had found their home by the time I got up. Eventually, five or six pairs had established themselves for the summer.

I find it no trouble at all to attract martins to our premises after having had success with them on three different widely separated properties.

Chas. L. Smith
Lima, Ohio

AUDUBON

SOCIETIES

HAVE

NEW LOOK

with
KEN
MORRISON

SO this is *Audubon Magazine's* fiftieth birthday!

Nature study was little more than a child in diapers when the first issue of *Bird-Lore* appeared in 1899. Anyone who watched birds ran the risk of being pursued by a stern-faced man in a white uniform or, at best, being the object of considerable derision.

Today there are so many bird watchers and other nature hobbyists that the viewers-with-glee apparently have become discouraged and, who knows, may have bought binoculars themselves.

There are some amateur naturalists who prefer to pursue their interests in solitary fashion; sometimes this tendency can be traced back to its birth during a field trip when dozens of exuberant nature-boys galloped through the woods shouting "What's that?" and "Look here!"

Despite the failings of the mob, many of us are as gregarious as purple martins and seize every opportunity to fraternize with fellow hobbyists. We are the folks who have organized local Audubon Societies and other nature clubs all over the continent.

These societies do not have venerable histories. Few of them are as old as *Audubon Magazine*. In Minnesota, for example, the first to organize was the Minneapolis Audubon Society which held its charter meeting in 1915. No other ornithological group sprung up until 1929. Now, just 20 years later, there are 14 local Audubon Societies and bird clubs in the North Star state. Other states tell much the same story.

Some of the groups that started as simon-pure bird clubs have branched out and now foster a lively interest in plants, mammals, insects, and other phases of natural history. They even talk about ecology and are trying to gain a clearer insight into the complicated interrelationships that bind together all living things as tightly as milady was bound together when she gingerly sat down to peruse volume one, number one, of *Bird-Lore*.

Walk in on a local Audubon Society meeting today and you may hear about a wildlife sanc-

tuary that the organization maintains; scholarships for Audubon Nature Camps; a campaign to acquaint the public with the function of hawks, owls, foxes, wolves and other predators; promotion of Audubon Junior Clubs in the schools and youth groups; sponsorship of Audubon Screen Tours and Art Tours; or perhaps action is being considered to secure legislation that will save wilderness areas, promote soil conservation, improve forest production, or integrate resource management.

That is the Audubon Society of 1949. It has the "new look." It recognizes that wildlife does not exist in a vacuum, that it is but a link in a chain and that the other links—soil, water, plants—must all be strong if wildlife is to thrive. Furthermore, the Society knows that it must be an instrumentality of public education. Ecological illiterates do not practice or demand intelligent conservation. Who will provide the leadership if it does not come from those persons whose love of the out-of-doors has forced them to seek scientific answers to the problems posed by man's use and abuse of natural resources?

Have local Audubon Societies made progress in the 50 years that *Audubon Magazine* has been growing up? There can be no doubt about it. And most of the advances are chronicled in the history of the last dozen years.

Audubon Magazine mirrors this progress in its broad outlook on the world of nature. It is a common meeting place for that increasing company that

"Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in every thing."

(News about local club projects and other items for this column should be addressed to Ken Morrison, National Audubon Society, 400 Public Library, Minneapolis 3, Minnesota.)

BIRD STUDENTS!

Have you secured your copy of the 1948 **Breeding Bird Census**? It contains more detailed information than ever before, presented in an attractive form.

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AUDUBON FIELD NOTES

November, 1948—Forty cents a copy

NATIONAL AUDUBON SOCIETY

1000 Fifth Avenue, New York 28

AUDIO-

News &



VISUAL

Views

By

Dorothy Dingley and Ruth Margaretten

Photo & Film Department, National Audubon Society

RADIO & RECORDINGS

"... Tune in again next week at the same time for another episode in 'Fun Along the Nature Trail' ..."

This might be a typical sign-off for a school broadcast in which the children themselves have dramatized an "adventure in nature." It might be the closing words of an actual radio broadcast coming from a local commercial station. It might be the end of a transcription or recording that was secured from a radio network or educational government agency. Or it could be the termination of a simulated broadcast from a script written by the members of a class or club, using only a broom handle as a microphone.

The science of the projection of sound has developed into a very effective medium of communication and, as such, can be used to great advantage in planning nature and conservation programs. The value of this medium rests in several things.

Coordinating "audio" and "visual" materials.



Photograph by Ruth Margaretten

Where endless experiences could not be shared because of distances that intervened, radio and recordings have virtually eliminated that barrier by capturing the event either for simultaneous broadcast, or for transcription on a record that can be played back at will.

Radio is real and has definite emotional appeal. The closer we get to reality in planning an experience for a group, the greater the value of that experience and the longer we remember it. Another advantage to radio is that it lends itself to both group and individual listening. Recordings have all the advantages of radio and, in addition, can be previewed and evaluated before being used.

Since parents, club leaders and youth counselors are in a position to guide their groups in search of vital nature and conservation material in the medium of radio and recordings, we are happy to offer some suggested sources for materials of this kind.

Recordings for the Young

The world of nature is fascinating to youngsters, and this has been recognized by the many record companies that produce recordings for young children. We were fortunate in knowing an outstanding consultant in this field—Mrs. Emma Dickson Sheehy, who is Assistant Professor of Education at Columbia University, Music Editor of *Parents Magazine*, and author of the book, "There's Music in Children," published by Holt. Mrs. Sheehy says:

"Much of the earliest sound play of the young child centers around animal sounds, and long before he can carry on a conversation he can communicate in animal language! Capitalizing on this interest, Young People's Record Company has done pioneer work for the pre-school age child. Most noteworthy of their productions are 'Muffin in the Country' (the story of a little dog who hears all kinds of country sounds), 'Whoa Little Horses,' and 'When the Sun Shines' (invites child participation in running in the wind, rolling in the grass, etc.). Allegro Records contributes 'Let's Play Animals,' 'Skip to My Lou' (including the charming old cumulative song 'I Had a Cat . . .') and 'The Elephant and the Flea' (funny songs). These records are characterized by simplicity, unpatronizing approach, unhurried pace and undirected opportunity for children to participate.

"Other recent recordings on the fantasy side and for elementary age children that touch on certain

aspects of nature are Victor's 'Pan the Piper' (story of development of music from Pan's reed) and Muscraft's 'Peer Gynt and the Trolls' (music from Peer Gynt Suite). Music of the wide open spaces is represented by Aaron Copland's 'Rodeo' (Victor), Jack Guthrie's 'Songs of Oklahoma Hills' (Capitol) and 'Johnny Appleseed' (Victor).

"In bringing to children music related to nature, it is important to point out that a particular composition is *one* composer's way of expressing his feelings about nature. In other words, there is no

such thing as water or mountain music in themselves. Each listener brings to music his own interpretation and it may or may not arouse in him a nature picture—and this is as it should be. Among the many interesting musical compositions inspired by nature that children may find interesting are Decca's 'Animal Pictures in Music' and 'Insect Pictures in Music,' Victor's 'Morning' (Grieg) and 'Tales from the Vienna Woods' (Strauss), and Columbia's 'Flight of the Bumblebee' (Rimsky Korsakoff) and 'Waltz of the Flowers' (Tchaikowsky)."

Photograph by U.S. Forest Service



Bill Scott—Forest Ranger, as featured in the popular school radio programs of that name, are produced by Station WNYE, Board of Education, City of New York, in cooperation with the U.S. Forest Service.

Transcriptions for School Use

One of the most highly commended uses of radio and recordings in promotion of conservation has been exemplified by the radio program called "Bill Scott—Forest Ranger." This is a school radio series of 12 dramatic episodes that illustrate the many problems

and practices having to do with the wise and careful use of the forests, one of America's most important natural resources.

These programs were produced cooperatively by the New York City Schools and the U. S. Forest Service, and transcriptions are now available through both the Forest Service and the U. S.

Office of Education. An excellent accompanying manual has been prepared in order to aid the teacher in use of this material.

In awarding the "Bill Scott-Forest Ranger" series one of the four special honors bestowed by the School Broadcast Conference, the judges said: "This program makes a significant contribution in the field of conservation and is decidedly a genuine public service indicative of what other such school-producing groups can aspire to."

Radio Scripts

The suggestions offered thus far have encouraged listening more than participation—although group participation in both preparation and follow-up activities should play a vital part. Here, however, is a suggestion for an activity in which the group itself creates the learning experience—namely, in the production of a real or simulated radio broadcast. Some excellent scripts for this purpose are available on free loan from the Federal Security Agency of the U. S. Office of Education, Washington 25, D. C. and are described in their "Radio Script Catalog." Three series in the natural science and conservation field are especially good for scout troops, nature clubs, Audubon Societies and classroom use:

"John James Audubon"—scripts from a series of 6 broadcasts on the life and works of Audubon, the artist and naturalist.

"America's Wildlife"—scripts from a series of 28 programs about American plant and animal wildlife which stress the need for conservation. These scripts are made available through the courtesy of the American Wildlife Institute, Washington, D. C.

"Your Science Story Teller"—15 scripts from a series broadcast regularly by the Radio Council of the Chicago Public Schools. They emphasize conservation, observation, neighborhood walks, science hobbies, reading for information, and suggest field trips to neighboring museums, parks, and the like. Scripts can be revised in terms of local resources.

New Sound Films

We wish to share with you Mr. Charles Mohr's experience in using the "Living Earth" film series at the Audubon Nature Center, Greenwich, Connecticut, where he is director. Mr. Mohr, through constant use of films in his nature and conservation work, is especially capable of judging the value of such materials. His review of the "Living Earth" series follows:

"The recent announcement that the four-reel, sound and color motion picture, 'The Living Earth,' is now available, is important news for everyone concerned with effectively presenting the facts of conservation. This dramatic film by John H. Storer has been acclaimed by Audubon Screen Tour lecture audiences from Coast to Coast. Added to the

Photograph by Ruth Margaretten



Scripts on nature and conservation provide stimulating broadcast material.

re-edited film are animated maps and charts. A splendidly organized and coordinated narration links the four units, each of which runs eleven minutes. Supplementing the beauty, accuracy and superior photographic technique for which his films are well known, is the fervor of Storer's own devotion to the cause of conservation.

"The vast resources of the New York Zoological Society's new Conservation Foundation have gone into the preparation of the sound films. The result is an educational masterpiece. The impact of its photographic effects, its logically developed sequence of biological, economic, and historical facts, and its impressive narration leave audiences deeply stirred, and with the personal realization that conservation is everyone's concern, that there *are* things which the *individual* can do to help.

"Audio-visual education departments everywhere are eagerly previewing the new 'Living Earth' series. The Los Angeles Public Schools have ordered 32 sets. Community film libraries, likewise recognizing the vital need for such films, are ordering them for use with garden, service, professional, and

RADIO & RECORDINGS SOURCE LIST

Division of Information and Education
Forest Service, U. S. Dept. of Agriculture
Washington 25, D. C.

Federal Radio Education Committee
Federal Security Agency
U. S. Office of Education
Washington 25, D. C.

Write to your local radio stations and the major networks for programs dealing with nature and conservation.

other civic groups. In Greenwich, Connecticut, the garden clubs raised the funds for the films. In other communities, parent-teachers groups, museums, and conservation agencies are buying the series which is available through Encyclopaedia Britannica Films, Inc.

"Last August teachers and youth leaders in the conservation course at the Audubon Nature Center, previewed one of the first copies of 'Living

Earth.' No other film I have ever shown received such an enthusiastic, appreciative response. Everyone wanted to see it again. 'It is a wonderful introduction to conservation,' the teachers and students agreed, 'but also, it is a marvelous summation of a program such as our two week session, or of a unit of work in our own classrooms.' Here are films which can and will be shown over and over again."

Soil Conservation Service



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To: Subscribers to *Audubon Field Notes*



Beginning with Volume 3, No. 1 (year 1949), AUDUBON FIELD NOTES will be issued as of: February; April; June; August; October; December. As it has been found impossible to issue the magazine on the dates printed on the masthead, the editors have decided to make this change.

Six issues

\$2.00 annually

NATIONAL AUDUBON SOCIETY

1000 5th Avenue, New York 28, N. Y.

FIFTIETH

Happy Birthday

When did our magazine come into YOUR life? What do you think of its past and future? Send in your comments to be published in this column.

ANNIVERSARY

I can't seem to think of my childhood without thinking of *Bird-Lore*. The little magazine was part of me. Though I had about a year's head-start, *Bird-Lore* and I really grew up together. How can I ever forget the peculiar thrill of having my little article about my pet road-runner published? Who wouldn't have thrilled at learning that Dr. Frank M. Chapman had liked my drawing and writing well enough to use them? Mrs. Walter, who was editor of the "Young Observers Department" referred to me as "Master Sutton" and I remember wondering why a kid should be called "Master" when a grown man was only a "Mister." There was something contradictory, if not downright dishonest, about that.

So I can't think back to a time when *Bird-Lore* was not part of my life. I shall always be grateful to Dr. Chapman and to Louis Fuertes for helping me as they did. May *Audubon Magazine* encourage youngsters today even as *Bird-Lore* did me 35 years ago.

George Miksch Sutton

Ann Arbor, Michigan

It is a real satisfaction to me to pick up one of the early volumes of *Bird-Lore* when it was still in its nestling down, and compare it with the full-plumaged *Audubon Magazine* which is being turned out today.

At the beginning of the century when *Bird-Lore* first came into my life, I cherished it as a wonderful companion that took me by the hand and introduced me to others of kindred tastes that I did not know existed; for, like many another youngster, I was almost alone with my pet hobby and *Bird-Lore* was a great inspiration to me. Through the years I came to know some of the contributors as real persons, and finally enjoyed a delightful association with Dr. Frank Chapman in running the School Department of the magazine.

At that time, perhaps, I realized more fully than at any other, the contribution that Frank

Chapman was making to amateur ornithology, as well as to the professional field; and the response that I got from hundreds of young observers was the same as I had felt, myself, when Dr. Chapman's magazine first came into my hands.

The name of the magazine is now changed. The nestling is fully fledged and wears a gayer and more modern plumage; but its song is the same, and it calls to me just as sweetly as it did in 1902, when its existence first became known to me.

Undoubtedly, we can expect succeeding moults and plumages in keeping with the spirit of the times; and I shall continue to look forward to the appearance of each issue with the same wonder and satisfaction that it has given me all these years.

The Audubon brood is far larger today than when Frank Chapman built the first nest in 1899. Hundreds of birdlings have tested their pinions on it and flown to other hunting grounds, but I am sure they all follow the activities about the old roost with as keen an interest as when they nested there in their youth.

Arthur A. Allen
Professor of Ornithology
Cornell University

Ithaca, New York

Bird-Lore and Frank Chapman have been a tradition as long as I can remember, and I recall the pleasure I had in meeting Dr. Chapman for the first time about 1917.

I don't know how we would evaluate the importance of such a magazine and its editor. In my case the sight of the magazine anywhere aroused a sensation of friendliness and a sort of intimacy, like seeing a fraternal button on someone in a far place among strangers. I remember finding some early copies in an abandoned CCC camp, and how eagerly I picked them up to fill gaps in my file.

Naturally I am pleased with the changes made recently—the change to *Audubon Magazine*, denoting a policy of consideration for birds and mammals and other animal life, denoting a regard for the natural habitat of wild creatures which is also a habitat inspiring for mankind. I am pleased with the modern trend for the broadening of the view on wildlife conservation, in keeping with our broadening concepts on its importance to us and the broadening front on which we have to fight.

It is significant indeed that we have organized a Natural Resources Council for the purpose of furthering cooperation among conservation groups. I have had the pleasure of appearing at hearings



BIRD LOVERS ATTENTION!

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where my testimony for the Wilderness Society was presented, shoulder to shoulder, so to speak, along with that from the National Audubon Society, the Izaak Walton League, The Sierra Club, The Emergency Conservation Committee, State Game Commissions and many others.

This is the modern picture, which means an adaptation to desperate needs. But we can hardly overestimate the importance of those earlier years, when ornithologists like Chapman patiently worked to spread knowledge about birds, urged the appreciation of their beauty, and used the magazine as a vehicle for bird conservation. And it is instructive to run through the back numbers and note the devoted contributors, many of whom have made noted careers. Then, in the attractive field of ornithology, was laid the foundation for present day nature appreciation that extends even to insects, so feelingly portrayed by Edwin Way Teale.

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Moose, Wyoming

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It was a great day for the amateur bird observer—and that means most of us readers of *Audubon Magazine*—when Frank Chapman established *Bird-Lore*. Other ornithological journals of that time were too technical, too oölogical, too local in their appeal, too devoted to sport, or too something else—in other words too little devoted to the interests of the newly awakened class of bird-watchers—to satisfy a demand that was evident to Chapman. He saw the need and with characteristic enterprise he filled it.

This new magazine was to be both popular in its appeal and scientific in its treatment of bird-study. It was to demand of its contributors not only strict accuracy but something new to say. I remember sending Chapman in those early days a well-written paper on the mockingbird that had come to my hands from a Florida writer. I thought it was just the thing for *Bird-Lore*, but no, it was not at all what the editor wanted. He was not looking for entertaining essays unless they made a genuine contribution to our knowledge of bird life.

I subscribed to *Bird-Lore* at its beginning in 1899 and have continued to take it and its successor, *Audubon Magazine*, ever since. Of course, its character has changed somewhat in fifty years. It is less purely ornithological than it was at first, and it makes fewer contributions to science, but it has always devoted much space to the work of the Audubon Societies, whose organ it has been, and as those societies have widened their field to include to some extent the conservation of all our replaceable natural resources, it has become of recent years a potent force for the promotion of an interest in what we commonly call conservation. As an old contributor, never a very active one, and steady only for the two or three years when I reviewed the issues of *The Auk* in its columns, I can say that I have watched its progress with interest and approval and wish it continued success.

Francis H. Allen

West Roxbury, Massachusetts



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G2

Bird-Lore first came to my attention in 1906 or 1907. It was the first conservation magazine with which I became acquainted and it furnished my first information regarding bird life other than my own observations. Later I compiled the season notes from the Pacific Northwest and have also participated regularly in the Christmas Count that was initiated by that magazine.

It unquestionably has played an important part in stimulating an appreciation of native birds and many of the young people it reached have later become leaders in conservation activities as well as ornithology. In later years, it has broadened its interest to include many other phases of conservation work—a change that in my opinion belongs entirely on the credit side of the ledger.

I hope that its influence will grow and its concepts broaden as much in the next 50 years as it has in the past half century.

Ira N. Gabrielson

President

Wildlife Management Institute

Washington, D. C.

The INDEX for 1948 appears as SECTION II of this copy of *Audubon Magazine*.

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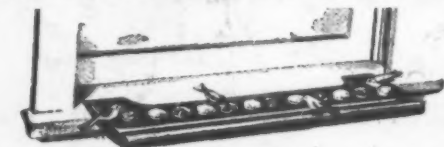
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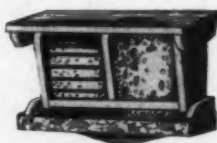
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